

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

FORM 3

AMENDED REPORT
(highlight changes)

APPLICATION FOR PERMIT TO DRILL				5. MINERAL LEASE NO: NA <u>FFE</u>	6. SURFACE: Fee
1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>				7. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA	
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input type="checkbox"/> OTHER <u>EXPL</u> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>				8. UNIT or CA AGREEMENT NAME: NA	
2. NAME OF OPERATOR: RBDR, LLC				9. WELL NAME and NUMBER: Crazy "R" Ranch #1	
3. ADDRESS OF OPERATOR: 9235-A So. Redwood			CITY <u>W. Jordan</u> STATE <u>UT</u> ZIP <u>84088</u>	PHONE NUMBER: (801) 561-7153	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 860' FNL & 460' FEL of Sec 12 T25S R04W				11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 12 25S 04W	
AT PROPOSED PRODUCING ZONE: 860' FNL & 46-0' FEL of Sec 12 T25S R04W					
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 2 miles east from Joseph, UT				12. COUNTY: Sevier	13. STATE: UTAH
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 460'		16. NUMBER OF ACRES IN LEASE: 280+/-		17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) none		19. PROPOSED DEPTH: 8,600		20. BOND DESCRIPTION: CD	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.) 5456' GR		22. APPROXIMATE DATE WORK WILL START: 11/1/2006		23. ESTIMATED DURATION: 60 days	

DID LOCATE 9/15/06

397163X 38.644665
4277801Y -112.181671

24. PROPOSED CASING AND CEMENTING PROGRAM							
SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT		
30"	20"	X42	78	120	ready mix	10 cu yd	
12-1/4'	9-5/8"	J55	36	2,000	lead CBM lite	250sx	4.12 10.5
					tail Premium	275sx	1.19 15.6
8-3/4"	5-1/2"	N80	17	8,600	50:50 POZ	550sx	1.21 14.35

25. **ATTACHMENTS**

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

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

NAME (PLEASE PRINT) Steven R. Hash, P.E., EXACT Engineering, Inc TITLE Consulting Engineer

SIGNATURE Steven R. Hash DATE 8/18/2006

(This space for State use only)

API NUMBER ASSIGNED: 43-041-30046

APPROVAL:

RECEIVED
AUG 22 2006

DIV. OF OIL, GAS & MINING

CONFIDENTIAL

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

FORM 3

AMENDED REPORT
(highlight changes)

APPLICATION FOR PERMIT TO DRILL				5. MINERAL LEASE NO: FEE	6. SURFACE: Fee
1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>				7. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA	
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input type="checkbox"/> OTHER <u>EXPL</u> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>				8. UNIT or CA AGREEMENT NAME: NA	
2. NAME OF OPERATOR: RBDR, LLC				9. WELL NAME and NUMBER: Crazy "R" Ranch #1	
3. ADDRESS OF OPERATOR: 9235-A So. Redwood CITY W. Jordan STATE UT ZIP 84088				PHONE NUMBER: (801) 561-7153	
4. LOCATION OF WELL (FOOTAGES) <u>397077x4277552Y 38.642409 -112.182624</u> AT SURFACE: 1680' FNL & 740' FEL of Sec 12 T25S R04W AT PROPOSED PRODUCING ZONE: 1890' FNL & 770' FEL of Sec 12 T25S R04W <u>397068Y4277498Y 38.641832 -112.182721</u>				10. FIELD AND POOL, OR WILDCAT: Wildcat	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 2 miles east from Joseph, UT				11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SENE 12 25S 04W	
				12. COUNTY: Sevier	13. STATE: UTAH
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 740'		16. NUMBER OF ACRES IN LEASE: 280+/-		17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) none		19. PROPOSED DEPTH: 8,600		20. BOND DESCRIPTION: CD	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 5401' GR		22. APPROXIMATE DATE WORK WILL START: 11/1/2006		23. ESTIMATED DURATION: 45 days	

24. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT	SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT		
30"	20" X42 78	120	ready mix	10 cu yd	
12-1/4'	9-5/8" J55 36	2,000	lead CBM lite	250sx	4.12 10.5
			tail Premium	275sx	1.19 15.6
8-3/4"	5-1/2" N80 17	8,500	50:50 POZ	550sx	1.21 14.35

25. ATTACHMENTS

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

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

NAME (PLEASE PRINT) Steven R. Hash, P.E. - EXACT Engineering, Inc TITLE Consulting Engineer

SIGNATURE Steven R. Hash DATE 9/25/2006

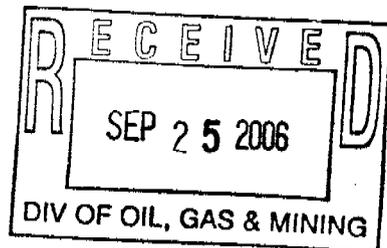
(This space for State use only)

API NUMBER ASSIGNED: 43-041-30046

Approved by the
Utah Division of
Oil, Gas and Mining

Date: 9-26-06

By: [Signature]



SECTION 12 TOWNSHIP 25 SOUTH RANGE 4 WEST

BENCHMARK ELEV=5368.89 (NGVD 29)
USGS DESIGNATION: H31 PID: J00015
STANDARD DISK STAMPED H 31 1934

NORTHWEST CORNER OF SECTION 12,
TOWNSHIP 25 SOUTH, RANGE 4 WEST,
SALT LAKE BASE AND MERIDIAN.

NORTHEAST CORNER OF
SECTION 12, TOWNSHIP 25
SOUTH, RANGE 4 WEST, SALT
LAKE BASE AND MERIDIAN.

PROPOSED SURFACE LOCATION
1680' FROM NORTH LINE AND
740' FROM EAST LINE OF
SECTION 12, T25S, R4W

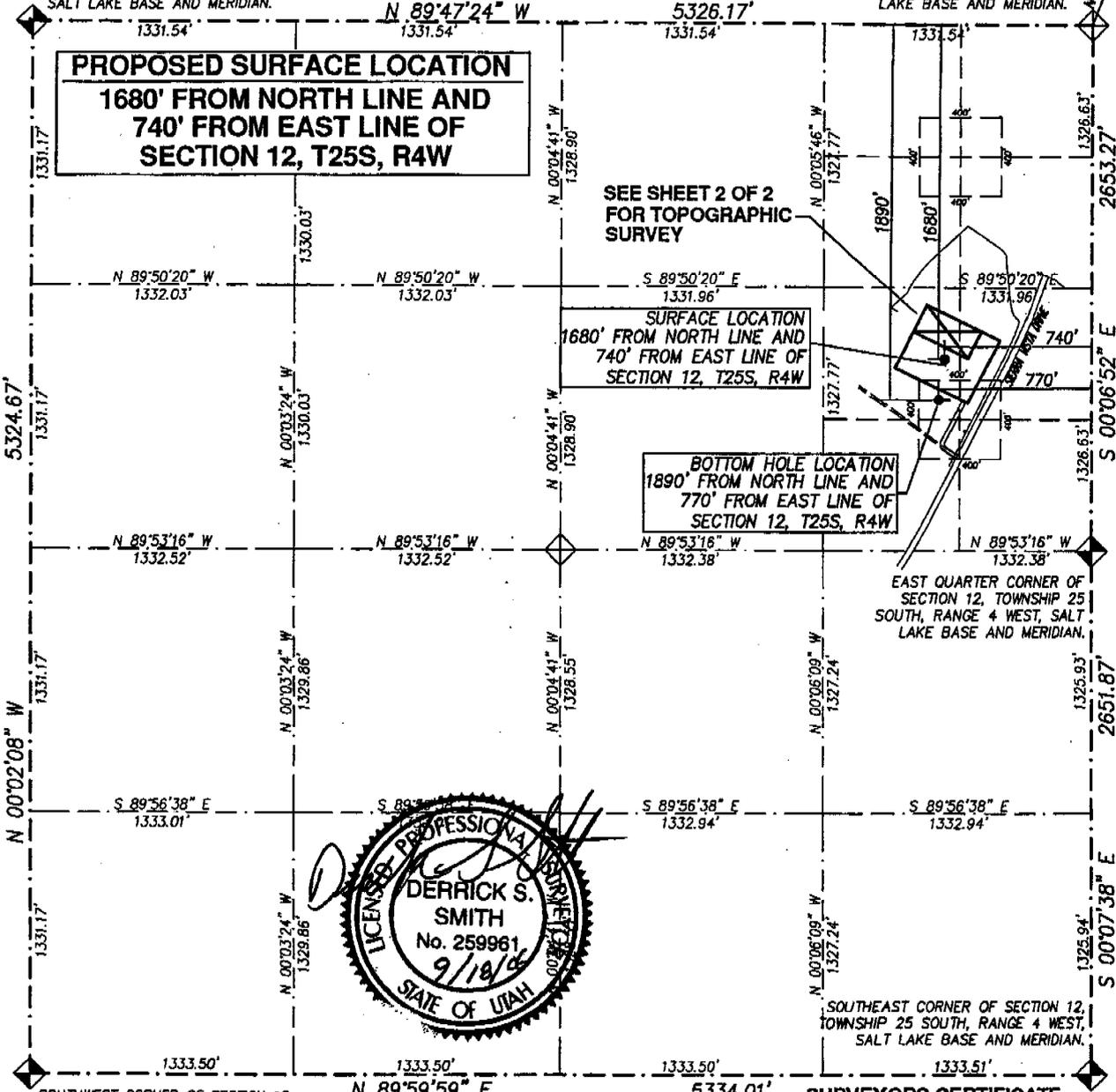
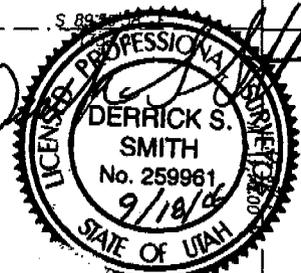
SEE SHEET 2 OF 2
FOR TOPOGRAPHIC
SURVEY

SURFACE LOCATION
1680' FROM NORTH LINE AND
740' FROM EAST LINE OF
SECTION 12, T25S, R4W

BOTTOM HOLE LOCATION
1890' FROM NORTH LINE AND
770' FROM EAST LINE OF
SECTION 12, T25S, R4W

EAST QUARTER CORNER OF
SECTION 12, TOWNSHIP 25
SOUTH, RANGE 4 WEST, SALT
LAKE BASE AND MERIDIAN.

SOUTHEAST CORNER OF SECTION 12,
TOWNSHIP 25 SOUTH, RANGE 4 WEST,
SALT LAKE BASE AND MERIDIAN.



SOUTHWEST CORNER OF SECTION 12,
TOWNSHIP 25 SOUTH, RANGE 4 WEST,
SALT LAKE BASE AND MERIDIAN.

SURVEYORS CERTIFICATE

I, Derrick S. Smith, depose and say that I am a Professional Land Surveyor as prescribed by Utah State Law and that I hold Certificate No. 259961 in accordance with Title 58, Chapter 22, Professional Engineers and Professional Land Surveyors Licensing Act. I further state that the property described above was surveyed under my direct supervision and the results of that survey are depicted hereon.

1. MEASUREMENTS SHOWN ON SECTION LINES ARE REFERENCED FROM RECORD OF SURVEYS COMPLETED BY JONES & DEMILLE ENGINEERING IN NOVEMBER, 2005 AND RECORDED AS ENTRY NO. 00336452 AND ENTRY NO. 00336451 IN THE SEVIER COUNTY RECORDERS OFFICE.

CLIENT
RBDOR DEVELOPMENT LLC
9235 SO. REDWOOD ROAD
WEST JORDAN, UTAH 84088
CONTACT: ROY HANSEN
(801) 561-7153

**CRAZY "R" RANCH #1
WELL LOCATION PLAT**
SECTION 12, TOWNSHIP 25 SOUTH, RANGE 4 WEST
SALT LAKE BASE AND MERIDIAN
1" = 800'

PEPG ENGINEERING, L.L.C.
421 W. 12300 S. #400 • DRAPER, UT 84020
PH: (801) 562-2521 • FAX: (801) 562-2551

SEPTEMBER 18, 2006 PLOT DATE	6319.0512 PROJECT NUMBER	BNSDV-03 DRAWING FILE
---------------------------------	-----------------------------	--------------------------

EXACT Engineering, Inc.

www.exactengineering.com

415 S. Boston Ave., Suite 734, Tulsa, OK 74103 • (918) 599-9400 • (918) 599-9401 (fax)

Steven R. Hash, P.E.
Registered Professional Engineer
stevehash@exactengineering.com

September 25, 2006

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

Re: Application for Permit to Drill - RBDR, LLC
Crazy "R" Ranch #1 (supersedes submittal dated 8/18/2006)
SE NE Sec 12 T25S - R04W
Sevier County, UT

Gentlemen,

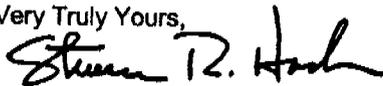
On behalf of RBDR, LLC, 9235-A South Redwood Road, West Jordan, Utah 84088 (801) 561-7153, please find enclosed the original and one copy of our completed Application for Permit To Drill the subject directional exploratory well. *Please note that the APD portion of our prior submittal, by letter dated August 18, 2006 and captioned similarly, is hereby rescinded and this APD should be considered an original.* That portion of our prior submittal pertaining to the initial Operator Designation, Collateral Bond and Annual Waste Management Plan should be considered the original and is not being resubmitted with this package. Included with this APD package is the following supplemental information:

1. Application For Permit To Drill - form 3
2. Affidavit evidencing agreement with surface landowner of drillsite
3. Certified Surveyor's Plats
4. Drilling water rights approval
5. Estimated formation tops to be encountered
6. Drilling Prognosis with hole/casing program detail, mud plan, BOPE specs, directional plan, etc

Please accept this letter as RBDR, LLC's written request for confidential treatment of all information contained herein and pertaining to this application and the drilling and/or completion of this exploratory well.

Thank you for your timely consideration of this application. Please contact the undersigned if you have questions or need additional information.

Very Truly Yours,



Steven R. Hash, P.E.
Consulting Engineer

copy to: Roy Hansen, RBDR, LLC
file

Petroleum Engineering Consulting, Personnel & Jobsite Supervision
complete well design, construction & management, drilling, completion, production, pipelines, appraisals,
due diligence, acquisitions, procedures, temporary personnel and field supervision

EXACT Engineering, Inc.

www.exactengineering.com

415 S. Boston Ave., Suite 734, Tulsa, OK 74103 • (918) 599-9400 • (918) 599-9401 (fax)

Steven R. Hash, P.E.
Registered Professional Engineer
stevehash@exactengineering.com

October 9, 2006

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

Re: Directional Drilling R649-3-11
Addendum to Application for Permit to Drill (wildcat) - RBDR, LLC
Crazy "R" Ranch #1
SE NE Sec 12 T25S - R04W
Sevier County, UT

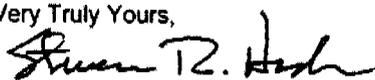
Dear Ms. Whitney,

On behalf of RBDR, LLC, 9235-A South Redwood Road, West Jordan, Utah 84088 (801) 561-7153, and per your request, we are hereby submitting this letter in accordance with Oil and Gas Conservation Rule 649-3-11 pertaining to the Exception to Location and Siting of Wells.

1. Surface location (proposed): 1680' FNL & 740' FEL of Sec 12
Bottom hole Location (proposed): 1890' FNL & 770' FEL of Sec 12
2. This well is permitted as a directional well in order to obtain favorable surface location topography and to conform to the surface landowner's desired use of the surface area.
3. RBDR, LLC hereby certifies that it is, or it represents, the sole working interest owner(s) within 460 feet of the entire directional well bore.

Based upon the information stated herein, RBDR, LLC respectfully request that this permit be granted pursuant to Rule 649-3-11

Very Truly Yours,



Steven R. Hash, P.E.
Consulting Engineer

Copy to: Roy Hansen, RBDR, LLC
File

Petroleum Engineering Consulting, Personnel & Jobsite Supervision
complete well design, construction & management, drilling, completion, production, pipelines, appraisals,
due diligence, acquisitions, procedures, temporary personnel and field supervision

EXACT Engineering, Inc.

www.exactengineering.com

415 S. Boston Ave., Suite 734, Tulsa, OK 74103 • (918) 599-9400 • (918) 599-9401 (fax)

Steven R. Hash, P.E.
Registered Professional Engineer
stevehash@exactengineering.com

August 18, 2006

Ms. Earlene Russell
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

Re: Request for RBDR, LLC to become a recognized Operator of oil and gas properties

Dear Ms. Russell,

On behalf of RBDR, LLC, we hereby request authority to become an Operator of oil and gas properties within the State of Utah. Pertinent contact information is listed below:

Operator:

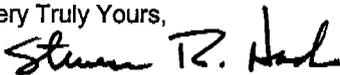
RBDR, LLC
9235-A South Redwood Road
West Jordan, Utah 84088
(801) 561-7153 fax (801) 567-1619
Contact: Mr. Roy Hansen, President email: rh51711@aol.com

Engineering Consultant & Agent: (for routine correspondence regarding well operations, reporting, etc)

EXACT Engineering, Inc
415 S. Boston, Suite 734
Tulsa, OK 74103
(918) 599-9400 fax (918) 599-9401
Contact: Steven R. Hash, P.E. email: stevehash@exactengineering.com

Thank you for your cooperation with this request.

Very Truly Yours,



Steven R. Hash

copy to: Roy Hansen, RBDR, LLC
file

Petroleum Engineering Consulting, Personnel & Jobsite Supervision
complete well design, construction & management, drilling, completion, production, pipelines, appraisals,
due diligence, acquisitions, procedures, temporary personnel and field supervision

CONFIDENTIAL

D.BRUCE WHITED
2522 SOUTH 2450 EAST
NEW HARMONY, UTAH 84757
(801)573-6286

June 5, 2006

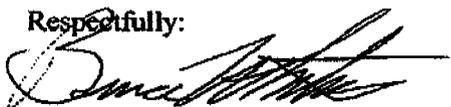
RE: Drilling Water for proposed Crazy R Ranch Well, Sevier County, Utah

To Whom It May Concern:

This letter is to certify that I am the owner of Water Right in the vicinity of the proposed, "Crazy R Ranch", well location and I that I have agreed to provide the water required for the drilling operation.

My water right consists of 22 shares of Brooklyn Irrigation Stock. The 22 shares of stock deliver approximately 66 ac.ft./year

Respectfully:



Bruce Whited.

CONFIDENTIAL

Crazy 'R' Ranch Prospect
Sevier County, Utah

- APD Checklist -
Items #5 & #6

Item #5 Estimated geologic markers:

- | | |
|-------------------------------|-------------|
| 1) Est. Top Sevier River Frm. | ± 750 feet |
| 2) Est. Top Arapien Shale | ± 2900 feet |
| 3) Est. Top Navajo Sandstone | ± 5200 feet |

Item #6 Estimated Top and bottom of anticipated water, oil, gas, other mineral zones and plans for their protection:

- | | |
|-----------------------------|-------------|
| 1) Est. Top of Oil/Gas zone | ± 5200 feet |
| Run Casing | |

Estimate
Tops

01/11/11

RBDR, LLC

DRILLING PROGNOSIS

**RBDR, LLC - Crazy "R" Ranch #1
SE NE SEC 12-T25S-R04W
Sevier Co., Utah**

BRIEF DRILLING PLAN

Directionally drill an exploratory well to test the Jurassic Navajo Sandstone formation to a total depth of 8,500' TVD. Due to topography the proposed surface location lies approximately 400 ft due north of the center of a regular 40 acre drilling unit. The well path will be controlled sufficiently to a bottom hole location at the top of the producing formation that is within a 400 ft x 400 ft target in the center of the reference quarter-quarter section. Well path deviation is the primary drilling concern in this area. No abnormal pressure or hydrogen sulfide gas is anticipated. The projected surface and bottom hole locations are as follows:

Surface Location:	1680' fnl & 740' fel of Sec 12 T25S - R04W
BHL @ top of Navajo	(5200' TVD) 1890' fnl & 770' fel of Sec 12 T25S - R04W
BHL @ total depth	(8500' TVD) 1890' fnl & 770' fel of Sec 12 T25S - R04W

20" conductor casing will be cemented to surface at approximately 120 ft BGL. A 12-1/4" hole will be drilled vertically (with directional control) to ~2000' TVD. 9-5/8" surface csg will be set at TD & cemented to surface. An 8-3/4" hole section will then be drilled directionally below 9-5/8" csg to 5200' TVD at an angle of approximately five degrees from vertical. Once inside the 400' x 400' target area as described above the borehole will be allowed to drop to near vertical until total depth of 8500' is reached. The well will be logged and if warranted 5-1/2" production casing will be set and cemented a minimum of 500' above any potentially productive interval. A Navajo completion attempt will then likely be made.

EMERGENCY NUMBERS – dial 911 or

Sevier Valley Medical Center	(435)-896-8271
Medical Helicopter	(800)-453-0120
Sheriff Department	(435)-896-2600
Fire Department-Richfield, UT	(435)-896-5479
Utah Division of Oil, Gas and Mining (Salt Lake City):	(801)-538-5340

Casings
5000' x 12'

Utah Division of Oil, Gas and Mining

Contact Carol Daniels (801) 538-5284, 24 hrs prior to spudding

GENERAL INFORMATION

OBJECTIVE: Navajo @ 5200' TVD **ELEVATION:** 5401' GR

PROJECTED TOTAL DEPTH: 8600' TVD; 8600' MD

SURFACE LOCATION: 1680' fnl & 740' fel of Sec 12-T25S-R04W

COUNTY: Sevier **STATE:** Utah

DIRECTIONS TO LOCATION: From jct of US 89 & SR 118 in Joseph, go east on SR 118 for 1.5 miles, then turn left and go north 1 mile to location.

PROPOSED CASING PROGRAM:

Hole Size	Casing Size	Wt./Ft.	Grade	Joint	Measured Depth
30"	20"	78# .375w	GrB/X42	PE welded	146' (120' BGL)
12-1/4"	9-5/8"	36.0#	J-55	STC	0' - 2,000'
8-3/4"	5-1/2"	17.0#	N-80	LTC	0' - 8500'

Hole Size	Casing Size	Drift ID, in.	OD of Couplings	Annular Volume in OH, cf/ft	Annular Volume in Csg, cf/ft	Capacity of casing, cf/ft
30"	20"	19.20	Welded	2.73	NA	2.19
12-1/4"	9-5/8"	8.765	10.625	.3132	1.50	.4340
8-3/4"	5-1/2"	4.767	6.050	.2526	.2691	.1305

GEOLOGIC FORMATIONS:

Formation	Interval (TVD)	Interval (MD)	Lithology	Prod	Abnormal or H2S
Sevier River	750-2900'	750 - 2900'urf	Sand & shale		
Arapien	2900-5200'	2900 -5200'	Sh,siltstn,salt,evaporates		
Navajo	5200 - 8500	5200' - TD	Sandstone w/ minor shale	X	

CONSTRUCTION OF SURFACE LOCATION

400' x 350' total pad area including pit area
 300' x 150' x 12' Reserve Pit with a 12 mil synthetic liner
 72" diameter tin horn cellar, 10' deep.
 Flare pit a minimum of 100' from wellhead.

SECTION 1 - SURFACE HOLE: 0' to 2000'

Drill a 12-1/4" hole (directional control for straight hole drilling) with a tricone bit, mud motor, MWD & BHA equipment to approximately 2000' beginning by circulating the reserve pit containing freshwater. Mud up to TD and run casing (make hole to fit 9-5/8" casing). Loss circulation could be a problem in this interval and, if such occurs, begin pumping LCM pills and if necessary mix into the entire system as needed. Maintain hole angle less than 6 degrees and dogleg severity less than 3 degrees per 100 ft.

PRESSURE CONTROL & SAFETY EQUIPMENT FOR SURFACE HOLE

Bottom to Top

20" drilling nipple with fillup line and 10-3/4" flow line w/ flowline valve

MUD PROGRAM FOR SURFACE HOLE

<u>DEPTH</u>	<u>MUD WEIGHT</u>	<u>TYPE</u>	<u>VISC</u>	<u>FLUID LOSS</u>
--------------	-------------------	-------------	-------------	-------------------

0 -2000'	8.4 – 9.2	Fresh water mud	26-50	N/C
----------	-----------	-----------------	-------	-----

Note: Sweep hole every 100 – 200 feet or as needed for hole cleaning. Maintain maximum flowrates for hole cleaning. Use freshwater gel, caustic and soda ash to maintain properties.

CASING PROGRAM FOR SURFACE HOLE

<u>DEPTH</u>	<u>SIZE</u>	<u>LENGTH</u>	<u>WT</u>	<u>GRADE</u>	<u>THREAD</u>	<u>REMARKS</u>
--------------	-------------	---------------	-----------	--------------	---------------	----------------

0 - 2000'	9-5/8"	2000'	36#	J-55	ST&C	
-----------	--------	-------	-----	------	------	--

Casing Running Sequence:

guide shoe, 1 jt of 9-5/8" 36# J55 ST&C, float collar, remainder of 9-5/8" 36# J55 ST&C csg to surface. Use centralizers every joint on btm 3 jts then inside conductor csg at 120'. RU cement co., hold safety meeting, test lines, cement 9-5/8" casing using the cementing guide below. Displace with fresh water or mud.

CEMENTING PROGRAM FOR SURFACE CASING

Lead: 250 sx CBM lite

Mixed at: 10.5 ppg
Yield: 4.12 ft³/sx

Tail: 275 sx Premium Plus

Mixed at: 15.6 ppg
Yield: 1.19 ft³/sx

MUST CIRCULATE CEMENT TO SURFACE If the cement does **not** circulate to surface be prepared to top out with premium cement.

WOC A TOTAL OF 24 HOURS:

Wait 4 hours with the hydrostatic pressure of the displacement fluid in place, then cut off conductor and weld on an 11" 3M x 9-5/8" SOW casing head. NU an 11" 3M double ram BOP w/ 3M annular and 3M choke manifold rigged to mud/gas separator, mud tanks and flare pit.

SECTION 2 - INTERMEDIATE CASING HOLE:

There will not be an intermediate hole section unless severe loss circulation or other hole conditions warrant. If such is encountered, 7" 23ppf casing may be utilized for intermediate casing.

SECTION 3 - PRODUCTION CASING HOLE: 2000' to 8500'

Directionally drill an 8-3/4" hole with a tricone bit, mud motor, MWD & BHA equipment to approximately 5000' per the attached directional program beginning by circulating the reserve pit containing freshwater converting to a salt saturated mud system to minimize salt erosion depending upon hole conditions. Mud up as dictated for hole cleaning. Loss circulation could be a problem in this interval and, if such occurs, begin pumping LCM pills and if necessary mix into the entire system as needed. Maintain hole angle less than 6 degrees and dogleg severity less than 3 degrees per 100 ft. Drop hole angle once inside the target area to total depth of 8500'

PRESSURE CONTROL & SAFETY EQUIPMENT FOR PRODUCTION CASING HOLE

Bottom to Top (see attached 3M BOP diagram)

11" 3M x 9-5/8" SOW casing head w/ (2) 2" LPO
11" 3M x 11" 5M DSA if required (depending upon rig stack)
11" 3M x 11" 3M mud cross with (2) side outlets:
 one outlet 2" kill line
 one outlet 3" choke line
11" 3M double ram BOP w/ pipe rams top & CSO rams btm
11" 3M Annular Preventer
11" 3M rotating head

Connect BOP to 3M choke manifold with pressure gauge
Upper kelly cock valves with handles available
Safety valves and subs to fit all drill string connections in use
Inside BOP or float sub available

Testing Procedure:

Annular Preventer

The annular preventer will be pressure tested to 1500 psi for a period of ten minutes or until provisions of the test are met, whichever is longer. At a minimum, the pressure test will be performed:

- 1) When the annular is initially installed
- 2) Whenever any seal subject to test pressure is broken
- 3) Following related repairs and at 30 day intervals

The annular preventer will be functionally operated once per week.

Blowout Preventer

The BOP, choke manifold and related equipment will be pressure tested to 3000 psi. Pressure will be maintained for a period of at least ten minutes or until the requirements of the test are met, whichever is longer. At a minimum the pressure test will be performed:

- 1) When the BOP is initially installed
- 2) Whenever any seal subject to test pressure is broken
- 3) Following related repairs and at 30 day intervals

The pipe and blind rams will be activated each trip, but not more than once each day. All BOP drills will be recorded in the IADC driller's log.

Accumulator:

The accumulator will have sufficient capacity to open the hydraulically controlled gate valve (if so equipped), close all rams plus the annular preventer, and retain a minimum of 200 psig above pre-charge on the closing manifold without the use of the closing unit pumps. The reservoir capacity will be double the accumulator capacity, and the fluid level will be maintained at the manufacturer's recommendations. The accumulator shall have two (2) independent power sources to close the preventers. Nitrogen bottles may be one of the independent power sources and, if so, shall maintain a charge equal to the manufacturer's specifications.

The accumulator pre-charge pressure test will be conducted prior to connecting the closing unit to the BOP stack and at least once every six months thereafter.

Choke Manifold Equipment, Valves and Remote Controls

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

A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve will be maintained in the open position and will be closed only when the power source for the accumulator is inoperative.

Remote controls shall be readily accessible to the driller. Remote controls will be capable of both opening and closing all preventers. Master controls will be at the accumulator and will be capable of opening and closing all preventers and the choke line valve (if so equipped).

The choke manifold and BOP extension rods with hand wheels will be located outside the rig sub structure. The hydraulic BOP closing unit will be located at least twenty-five feet from the well head but readily accessible to the driller.

A flare line will be installed after the choke manifold, extending 100 feet from the center of the drill hole to a separate flare pit.

From: "Steve Hash" <SteveHash@exactengineering.com>
To: "Dustin Doucet" <dustindoucet@utah.gov>
Date: 10/25/2006 3:32 PM
Subject: RE: RBDR, LLC - Crazy R Ranch #1 APD cmt top

Dustin, no...some how I missed your msg notification but I just called voicemail and listened to it. I'm still in Sevier Co. I suppose you are right...the cement fill and Navajo top don't exactly coincide. The reason is that we are of course unsure where the Navajo top may be. For directional planning I had to assume the highest and for permit TD I needed to assume the lowest. Bottom line...we will cover Navajo with cmt wherever it is. If at 5200' then we will likely not drill as deep as 8500'. 8500' was for APD purposes. Let me know if you need anything further clarification from me plse, thanks

Steve
Steven R. Hash
EXACT Engineering, Inc.
415 S. Boston, Suite 734
Tulsa, OK 74103
(918) 599-9400 office (918) 599-9401 office fax
(918) 599-9801 direct (801) 640-7470 mobil fax
email: stevehash@exactengineering.com
web: www.exactengineering.com

-----Original Message-----

From: Dustin Doucet [mailto:dustindoucet@utah.gov]
Sent: Wednesday, October 25, 2006 2:01 PM
To: Steve Hash
Subject: Re: RBDR, LLC - Crazy R Ranch #1

Steve,

I guess you must not have got my message I left you the other day. Your cement on the production string only comes up to ~6500'. I believe we need to isolate the Navajo top at ~5200'. Your prognosis states 2000' of cement to be pumped, which would bring it up to the calculated 6500' top. Can you supply me with supplemental information adding to the cement quantity to cover the Navajo top or justifying why that is not necessary. Thanks.

Dustin

Dustin Doucet
Petroleum Engineer
Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84116
Phone (801) 538-5281
Fax (801) 359-3940
email: dustindoucet@utah.gov

>>> "Steve Hash" <SteveHash@exactengineering.com> 10/25/2006 12:46 PM
>>>

Production
Casing Program

MUD PROGRAM FOR PRODUCTION CASING HOLE

DEPTH	MUD WEIGHT	TYPE	VISC	FLUID LOSS
2000' - 8500'	9.2 - 10.6	Salt Mud	36 - 50	N/C to 12cc

Convert to a salt gel & sea mud system as salt and gypsum sections are drilled. If loss circulation becomes a problem use LCM sweeps to control seepage & clean hole. As potential pay zones are encountered lower filtrate to 10-12 cc range. Incorporate use of Flowzan polymer for properties

EVALUATION PROGRAM FOR PRODUCTION CASING HOLE

Mudlogger: From surface casing @ 2000' to TD.

At TD, circulate and condition hole clean for logs. Short trip and monitor well closely. TOH for logs. Run Induction tool as run #1 to determine hole conditions for logging. Adjust tool configurations depending on hole condition.

Electric Logs:

Tool	Surf to TD
SDL/DSN/GR	Yes
DLL/MSFL/SP/GR for brine mud system	Yes
EMI or dip	Yes

CASING PROGRAM FOR PRODUCTION CASING HOLE

DEPTH	SIZE	LENGTH	WT	GRADE	THREAD	REMARKS
0' - 8500'	5-1/2"	8500'	17.0#	N-80	LT&C	

Rig up casing tools and run 5-1/2" production casing as follows:

Float shoe, 1 joint of 5-1/2" 17# N-80 LT&C casing, float collar then run balance of casing to surface using bow centralizers across pay intervals.

CEMENT PROGRAM FOR PRODUCTION CASING

Lead: 550 sx 50:50 POZ

Mixed at: 14.350 ppg

Yield: 1.21 ft³/sx

Cement calculated for 2000 ft of fillup @ 1.25 fillup factor. Final calculation to be log caliper plus 25% excess. Displace cement w/ fresh water. Hang casing in slips.

SCHEDULE

Location preparation is presently scheduled to begin on or about October 15, 2006

Drilling operations are anticipated to begin on or about November 1, 2006

PRESSURE CONTROL SYSTEM SCHEMATIC

Prepared by:
EXACT Engineering, Inc
Tulsa, OK (918) 599-9400

Operator:
RBDR, LLC

Well name and number
Crazy "R" Ranch #1

3M BOP Stack --- to be utilized while drilling holes for protective and production casings thru lower Arapien, Twin Creek & Navajo intervals

Max. anticipated surface pressure 3000 psi

Annular B.O.P. 11" - 3M WP

B.O.P. pipe Rams 11" - 3M W.P.
(Pipe/Blind)

B.O.P. blind Rams 11 - 3M W.P.
(Pipe/Blind)

Check Valve 2" 3M WP

Valve 2" 3M WP

Valve 2" 3M WP

Valve 3" 3M WP

Valve 3" 3M WP

Kill Line Manifold

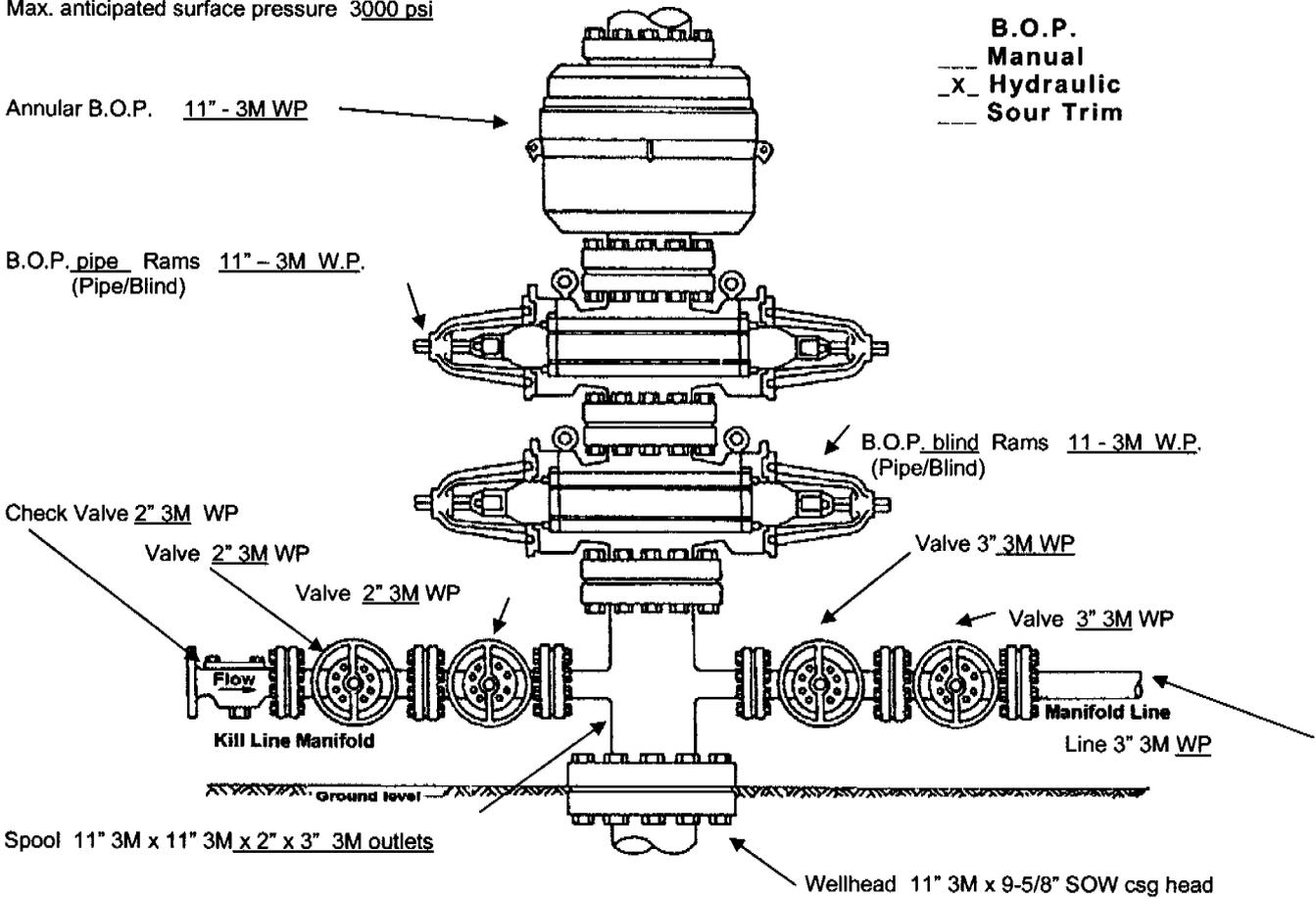
Manifold Line
Line 3" 3M WP

Ground level

Spool 11" 3M x 11" 3M x 2" x 3" 3M outlets

Wellhead 11" 3M x 9-5/8" SOW csg head

B.O.P.
Manual
 Hydraulic
 Sour Trim



Job Number:
 Company: RBDR LLC
 Lease/Well: Crazy R Ranch #1
 Location: NE/4 Sec 12 T25S R04W
 Rig Name:
 RKB:
 G.L. or M.S.L.:

State/Country: Sevier Co, UTAH
 Declination:
 Grid:
 File name: C:\WINSERVE\SURVEYS\PLANS\KMR17-7P.SVY
 Date/Time: 24-Sep-06 / 19:17
 Curve Name: Crazy R Ranch #1 (proposal)

Crazy R Ranch #1 (proposal)

WINSERVE PROPOSAL REPORT
 Minimum Curvature Method
 Vertical Section Plane 188.00
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

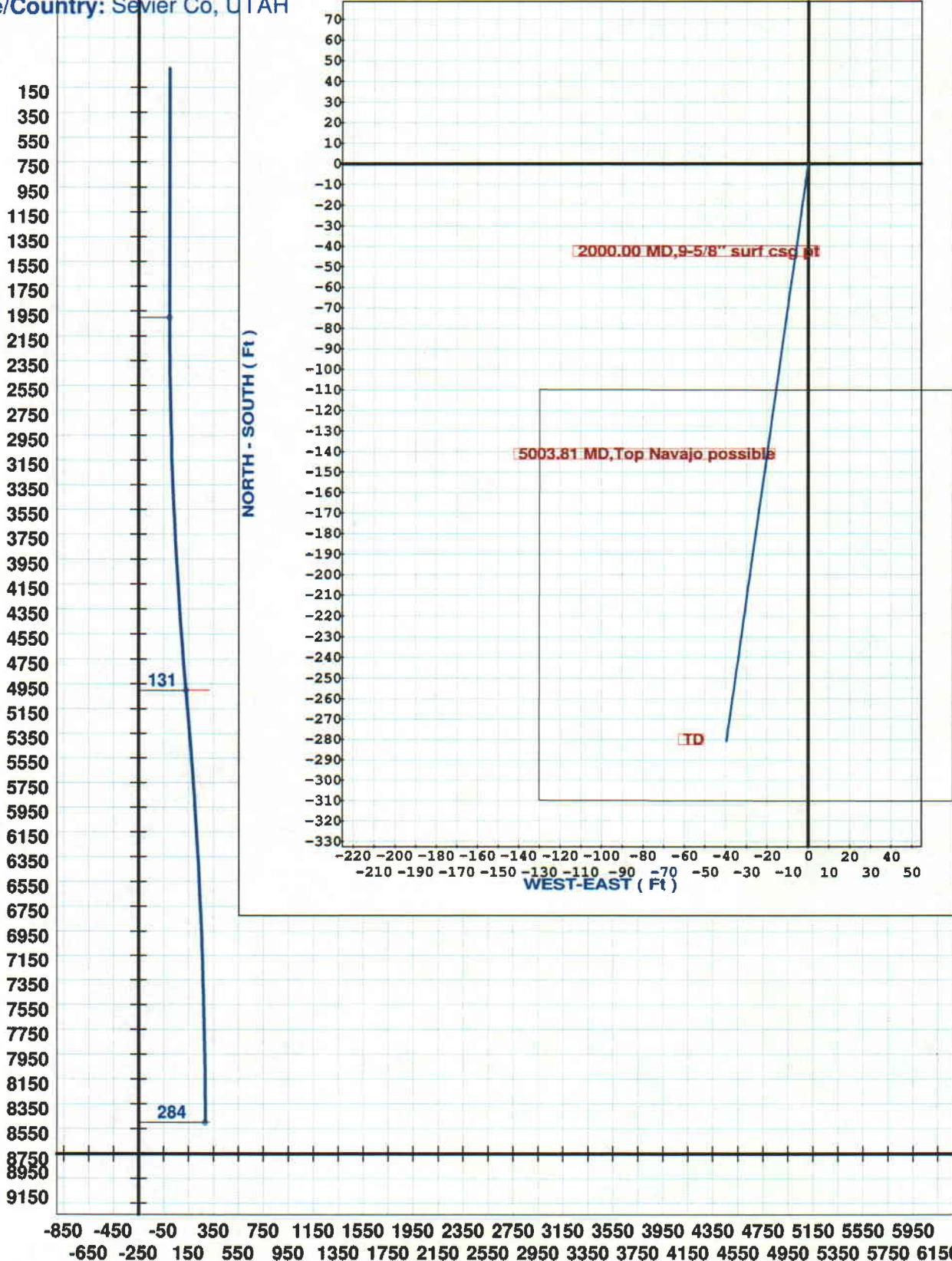
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Course Length FT	Vertical Section FT	N-S FT	E-W FT	Dogleg Severity Deg/100	BUILD RATE Deg/100	WALK RATE Deg/100	TFO Deg
.00	.00	.00	.00		.00	.00	.00	.00	.00	.00	90.00
250.00	.00	.00	250.00	250.00	.00	.00	.00	.00	.00	.00	.00
500.00	.00	.00	500.00	250.00	.00	.00	.00	.00	.00	.00	.00
750.00	.00	.00	750.00	250.00	.00	.00	.00	.00	.00	.00	.00
1000.00	.00	.00	1000.00	250.00	.00	.00	.00	.00	.00	.00	.00
1250.00	.00	.00	1250.00	250.00	.00	.00	.00	.00	.00	.00	.00
1500.00	.00	.00	1500.00	250.00	.00	.00	.00	.00	.00	.00	.00
1750.00	.00	.00	1750.00	250.00	.00	.00	.00	.00	.00	.00	-90.00
9-5/8" surf csg pt											
2000.00	.00	188.00	2000.00	250.00	.00	.00	.00	.00	.00	-68.80	.03
2095.00	.16	188.00	2095.00	95.00	.13	-.13	-.02	.17	.17	.00	.00
2190.00	.32	188.00	2190.00	95.00	.52	-.52	-.07	.17	.17	.00	.00
2285.00	.47	188.00	2285.00	95.00	1.18	-1.17	-.16	.17	.17	.00	.00
2380.00	.63	188.00	2379.99	95.00	2.10	-2.08	-.29	.17	.17	.00	.00
2475.00	.79	188.00	2474.98	95.00	3.28	-3.25	-.46	.17	.17	.00	.00
2570.00	.95	188.00	2569.97	95.00	4.72	-4.67	-.66	.17	.17	.00	.00
2665.00	1.11	188.00	2664.96	95.00	6.42	-6.36	-.89	.17	.17	.00	.00
2760.00	1.27	188.00	2759.94	95.00	8.39	-8.31	-1.17	.17	.17	.00	.00
2855.00	1.42	188.00	2854.91	95.00	10.62	-10.52	-1.48	.17	.17	.00	.00
2950.00	1.58	188.00	2949.88	95.00	13.11	-12.98	-1.82	.17	.17	.00	.00
3045.00	1.74	188.00	3044.84	95.00	15.86	-15.71	-2.21	.17	.17	.00	.00
3140.00	1.90	188.00	3139.79	95.00	18.88	-18.69	-2.63	.17	.17	.00	.00
3235.00	2.06	188.00	3234.74	95.00	22.15	-21.94	-3.08	.17	.17	.00	.00
3330.00	2.21	188.00	3329.67	95.00	25.69	-25.44	-3.58	.17	.17	.00	.00

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Course Length FT	Vertical Section FT	N-S FT	E-W FT	Dogleg Severity Deg/100	BUILD RATE Deg/100	WALK RATE Deg/100	TFO Deg
3425.00	2.37	188.00	3424.59	95.00	29.49	-29.21	-4.10	.17	.17	.00	.00
3520.00	2.53	188.00	3519.51	95.00	33.56	-33.23	-4.67	.17	.17	.00	.00
3615.00	2.69	188.00	3614.41	95.00	37.88	-37.51	-5.27	.17	.17	.00	.00
3710.00	2.85	188.00	3709.30	95.00	42.47	-42.05	-5.91	.17	.17	.00	.00
3805.00	3.00	188.00	3804.17	95.00	47.32	-46.85	-6.58	.17	.17	.00	.00
3900.00	3.16	188.00	3899.04	95.00	52.43	-51.92	-7.30	.17	.17	.00	.00
3995.00	3.32	188.00	3993.88	95.00	57.80	-57.24	-8.04	.17	.17	.00	.00
4090.00	3.48	188.00	4088.72	95.00	63.43	-62.81	-8.83	.17	.17	.00	.00
4185.00	3.64	188.00	4183.53	95.00	69.33	-68.65	-9.65	.17	.17	.00	.00
4280.00	3.80	188.00	4278.33	95.00	75.48	-74.75	-10.51	.17	.17	.00	.00
4375.00	3.95	188.00	4373.12	95.00	81.90	-81.11	-11.40	.17	.17	.00	.00
4470.00	4.11	188.00	4467.88	95.00	88.58	-87.72	-12.33	.17	.17	.00	.00
4565.00	4.27	188.00	4562.63	95.00	95.53	-94.60	-13.29	.17	.17	.00	.00
4660.00	4.43	188.00	4657.35	95.00	102.73	-101.73	-14.30	.17	.17	.00	.00
4755.00	4.59	188.00	4752.06	95.00	110.19	-109.12	-15.34	.17	.17	.00	.00
4850.00	4.74	188.00	4846.74	95.00	117.92	-116.77	-16.41	.17	.17	.00	.00
4945.00	4.90	188.00	4941.41	95.00	125.91	-124.68	-17.52	.17	.17	.00	.00
Top Navajo possible											
5003.81	5.00	188.00	5000.00	58.81	130.98	-129.71	-18.23	.17	.17	.00	-180.00
5098.81	4.86	188.00	5094.65	95.00	139.15	-137.80	-19.37	.14	-.14	.00	-180.00
5193.81	4.73	188.00	5189.32	95.00	147.09	-145.66	-20.47	.14	-.14	.00	180.00
5288.81	4.59	188.00	5284.00	95.00	154.81	-153.31	-21.55	.14	-.14	.00	-180.00
5383.81	4.46	188.00	5378.71	95.00	162.31	-160.73	-22.59	.14	-.14	.00	-180.00
5478.81	4.32	188.00	5473.43	95.00	169.58	-167.93	-23.60	.14	-.14	.00	180.00
5573.81	4.19	188.00	5568.16	95.00	176.63	-174.91	-24.58	.14	-.14	.00	180.00
5668.81	4.05	188.00	5662.92	95.00	183.45	-181.67	-25.53	.14	-.14	.00	180.00
5763.81	3.92	188.00	5757.69	95.00	190.05	-188.20	-26.45	.14	-.14	.00	-180.00
5858.81	3.78	188.00	5852.48	95.00	196.43	-194.52	-27.34	.14	-.14	.00	-180.00
5953.81	3.64	188.00	5947.28	95.00	202.58	-200.61	-28.19	.14	-.14	.00	-180.00
6048.81	3.51	188.00	6042.09	95.00	208.51	-206.48	-29.02	.14	-.14	.00	180.00
6143.81	3.37	188.00	6136.92	95.00	214.21	-212.12	-29.81	.14	-.14	.00	-180.00
6238.81	3.24	188.00	6231.76	95.00	219.69	-217.55	-30.57	.14	-.14	.00	180.00
6333.81	3.10	188.00	6326.62	95.00	224.94	-222.75	-31.31	.14	-.14	.00	-180.00
6428.81	2.97	188.00	6421.48	95.00	229.97	-227.73	-32.01	.14	-.14	.00	180.00
6523.81	2.83	188.00	6516.36	95.00	234.77	-232.49	-32.67	.14	-.14	.00	-180.00
6618.81	2.70	188.00	6611.25	95.00	239.36	-237.03	-33.31	.14	-.14	.00	180.00
6713.81	2.56	188.00	6706.15	95.00	243.71	-241.34	-33.92	.14	-.14	.00	-180.00
6808.81	2.42	188.00	6801.06	95.00	247.84	-245.43	-34.49	.14	-.14	.00	180.00
6903.81	2.29	188.00	6895.98	95.00	251.75	-249.30	-35.04	.14	-.14	.00	180.00
6998.81	2.15	188.00	6990.91	95.00	255.43	-252.95	-35.55	.14	-.14	.00	-180.00
7093.81	2.02	188.00	7085.85	95.00	258.89	-256.37	-36.03	.14	-.14	.00	-180.00
7188.81	1.88	188.00	7180.79	95.00	262.12	-259.57	-36.48	.14	-.14	.00	180.00
7283.81	1.75	188.00	7275.74	95.00	265.13	-262.55	-36.90	.14	-.14	.00	-180.00
7378.81	1.61	188.00	7370.70	95.00	267.91	-265.31	-37.29	.14	-.14	.00	180.00
7473.81	1.48	188.00	7465.67	95.00	270.47	-267.84	-37.64	.14	-.14	.00	-180.00
7568.81	1.34	188.00	7560.64	95.00	272.81	-270.15	-37.97	.14	-.14	.00	-180.00

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Course Length FT	Vertical Section FT	N-S FT	E-W FT	Dogleg Severity Deg/100	BUILD RATE Deg/100	WALK RATE Deg/100	TFO Deg
7663.81	1.20	188.00	7655.62	95.00	274.92	-272.24	-38.26	.14	-.14	.00	180.00
7758.81	1.07	188.00	7750.60	95.00	276.80	-274.11	-38.52	.14	-.14	.00	-180.00
7853.81	.93	188.00	7845.58	95.00	278.46	-275.75	-38.75	.14	-.14	.00	180.00
7948.81	.80	188.00	7940.57	95.00	279.90	-277.18	-38.95	.14	-.14	.00	-180.00
8043.81	.66	188.00	8035.56	95.00	281.11	-278.37	-39.12	.14	-.14	.00	180.00
8138.81	.53	188.00	8130.56	95.00	282.10	-279.35	-39.26	.14	-.14	.00	-180.00
8233.81	.39	188.00	8225.56	95.00	282.86	-280.11	-39.37	.14	-.14	.00	180.00
8328.81	.26	188.00	8320.55	95.00	283.40	-280.64	-39.44	.14	-.14	.00	180.00
8423.81	.12	188.00	8415.55	95.00	283.71	-280.95	-39.48	.14	-.14	.00	-180.00
8507.54	.00	188.00	8499.28	83.73	283.80	-281.03	-39.50	.14	-.14	.00	.00

TD											
8508.26	.00	188.00	8500.00	.72	283.80	-281.03	-39.50	.04	.00	.00	.00

Company: RBDR LLC
 Lease/Well: Crazy R Ranch #1
 Location: NE/4 Sec 12 T25S R04W
 Rig Name:
 State/Country: Sevier Co, UTAH



VERTICAL SECTION (Ft) @ 188.00°

**AFFIDAVIT OF RBDR, LLC
& SILVER SUMMIT LIMITED COMPANY**

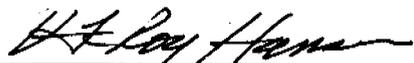
STATE OF UTAH)
) :ss
COUNTY OF SALT LAKE)

Roy Hansen, Manger of Silver Summit Limited Company and RBDR, LLC hereby states as follows:

1. Silver Summit Limited Company and RBDR, LLC as Lessee and Operator of the proposed well, the Crazy "R" Ranch #1 have an existing and continuing access (ingress, roads, right of way) agreement with the landowners.
2. Silver Summit Limited Company and RBDR, LLC as Lessee and Operator Of the proposed well, the Crazy "R" Ranch #1 have an existing and continuing well site restoration agreement, meeting the private landowners requirements.
3. **Surface Landowner information:**

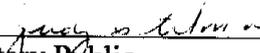
Michael Labrum	Steven Rosenzweig
P.O. Box 217	3227 Sierra Vista Drive
Richfield, UT. 84701	Monroe, UT. 84654
Tel. # (435) 896-1800	Tel. # (435) 527-4522

Dated this 13 day of July, 2006.

Silver Summit Limited Company
RBDR, LLC


V. Le Roy Hansen, Manager

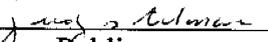
SUBSCRIBED AND SWORN to before me this 13 day of July, 2006



Notary Public

STATE OF UTAH)
) ss
COUNTY OF SALT LAKE)

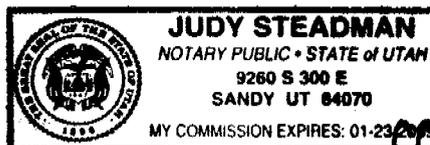
On the 13 day of July, 2006, personally appeared before me, V. Le Roy Hansen, who being duly sworn did say, as Manager of Silver Summit Limited Company and of RBDR, LLC, both Utah Limited Liability Companies, that said instrument was signed with authority on behalf of said companies.



Notary Public
Residing at West Jordan, UT.

my commission expires:

1-23-09



CONFIDENTIAL

DESIGNATION OF AGENT OR OPERATOR

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

LEASE NAME: CRAZY "R" RANCH

LEASE NUMBER: PRIVATE - # 1

and hereby designates

NAME: RBDR, LLC, a Utah LLC

ADDRESS: 9235-A SO. REDWOOD ROAD

city WEST JORDAN state Utah zip 84088

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.) LEASE COVERS THE NE 1/4, A PORTION OF THE NW 1/4 SE 1/4, A PORTION OF THE SE 1/4 NW 1/4 OF SECTION 12, T 25S, R 4W SLB & M AND THE SW 1/4 SW 1/4 OF SECTION 6 AND THE NW 1/4 NW 1/4 SECTION 7, T 25S, R 3W SLB & M.
(SEE ATTACHED MAP)

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.

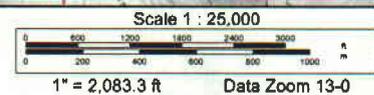
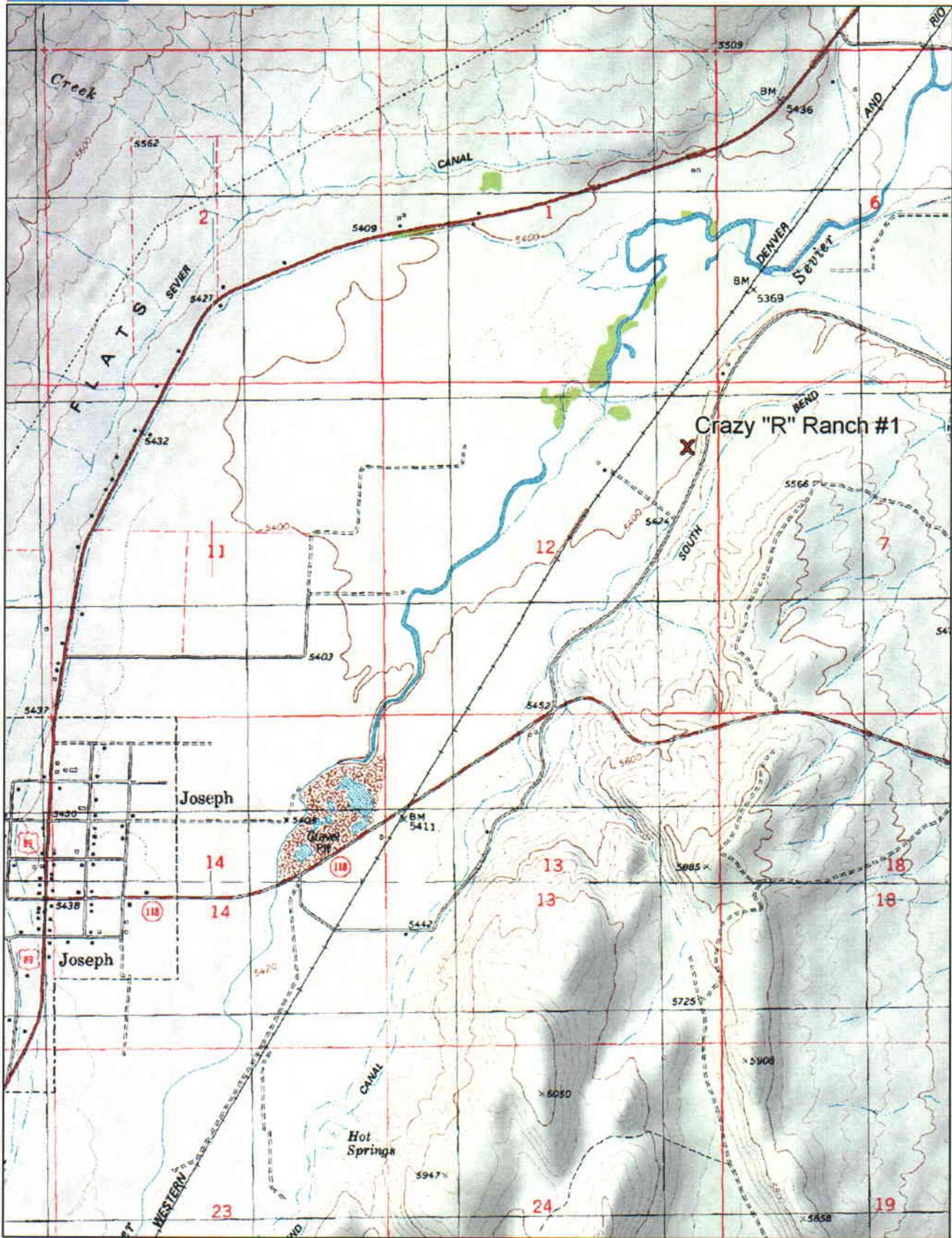
In case of default on the part of the designated agent/operator, the lessee will make full and prompt compliance with all rules, lease terms or orders of the Board of Oil, Gas and Mining of the State of Utah or its authorized representative.

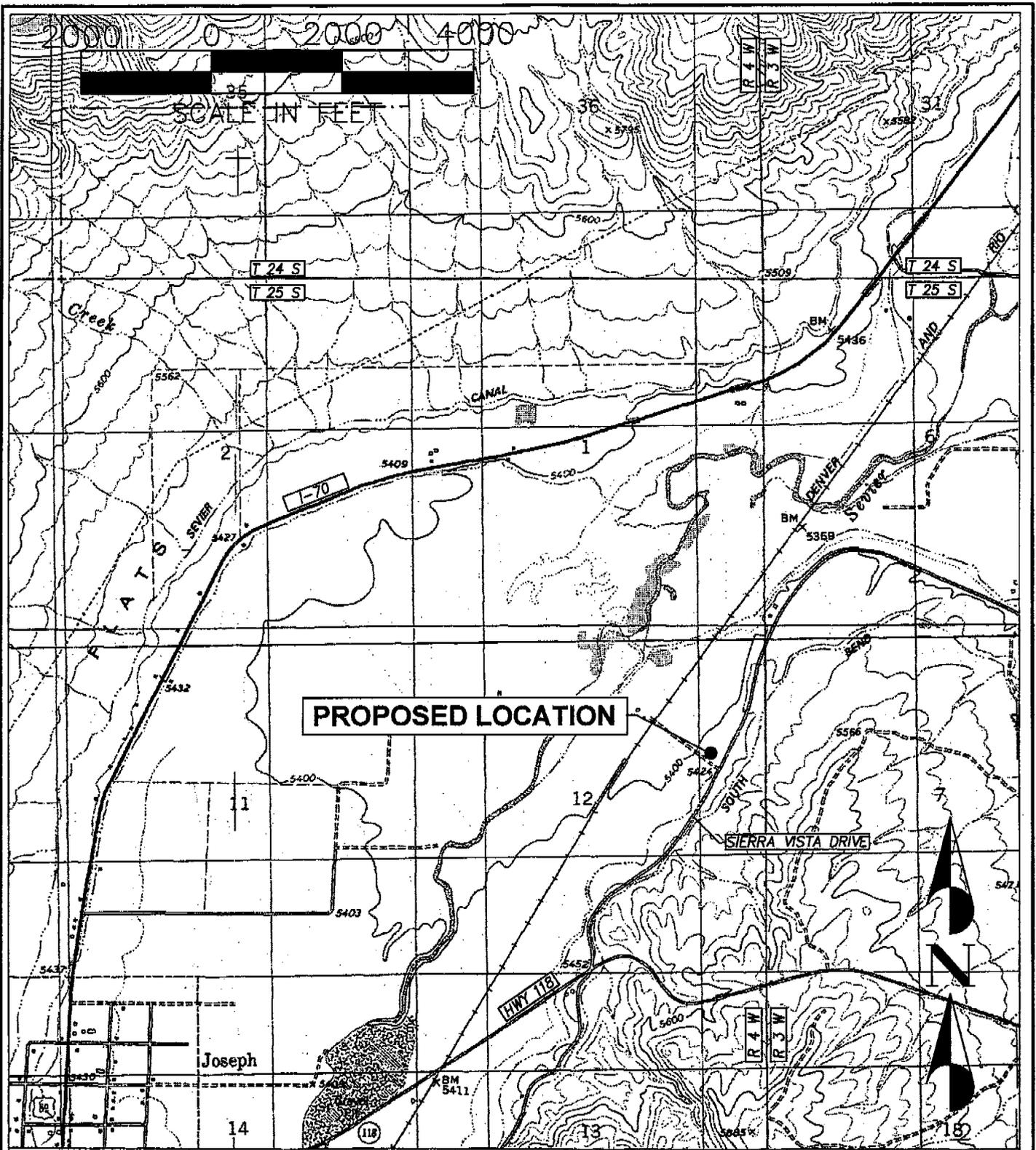
The lessee agrees to promptly notify the Division Director or Authorized Agent of any change in this designation.

Effective Date of Designation: JULY 15, 2006

BY: (Name) V. LE ROY HANSEN
(Signature) [Signature]
(Title) PRESIDENT / MANAGER
(Phone) (801) 561-7153

OF: (Company) SILVER SUMMIT, LC
(Address) 9235A SO. REDWOOD ROAD
city WEST JORDAN, UT
state UT zip 84088





**CRAZY "R" RANCH #1
WELL LOCATION VICINITY MAP**
SECTION 12, TOWNSHIP 25 SOUTH, RANGE 4 WEST
SALT LAKE BASE AND MERIDIAN



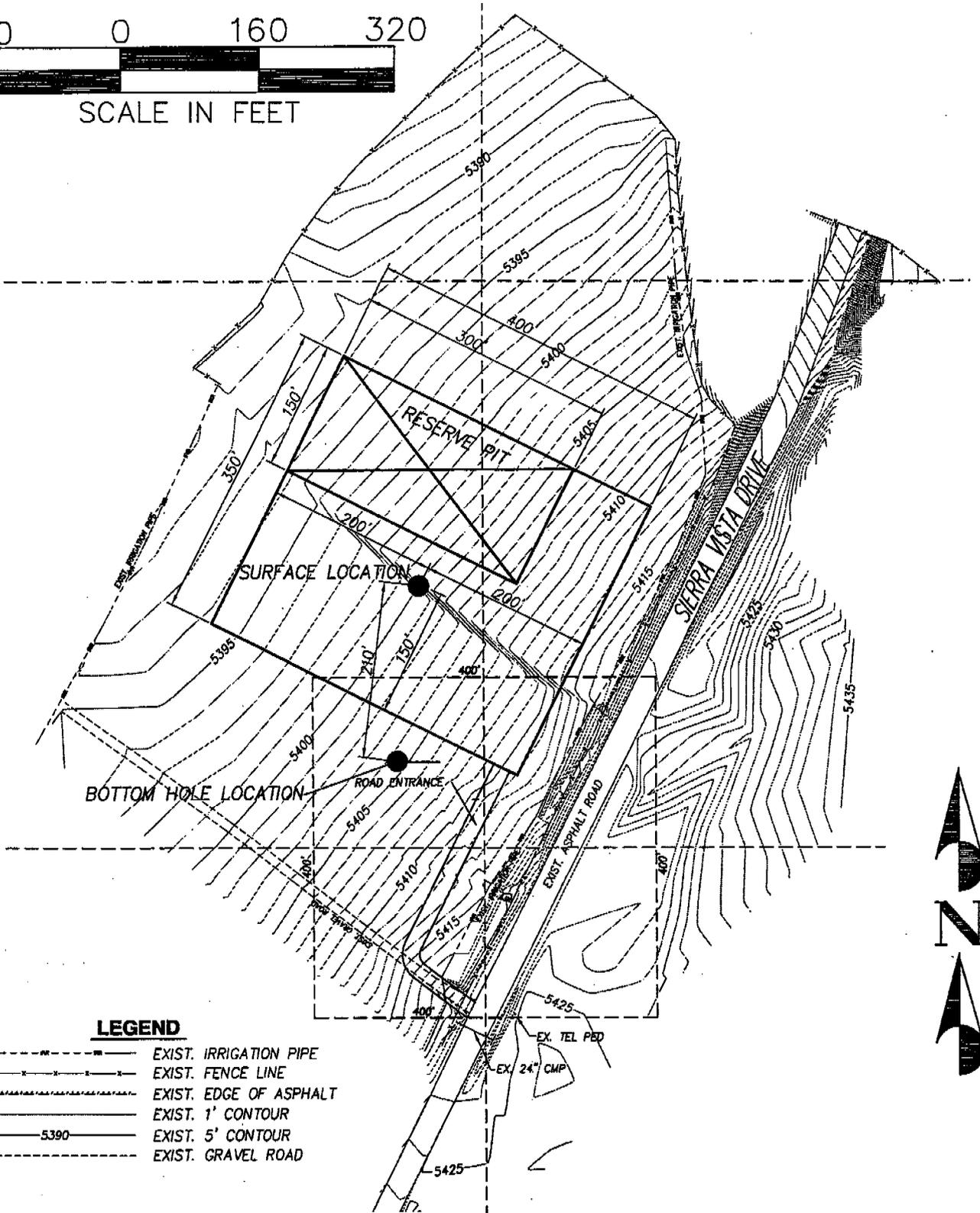
PEPG ENGINEERING, L.L.C.

421 W. 12300 S. #100 • DRAPER, UT 84020
PH: (801) 562-2521 • FAX: (801) 562-2551

SEPTEMBER 18, 2006
PLOT DATE:

6519.0512
PROJECT NUMBER:

WELL VICINITY
DRAWING FILE:



- LEGEND**
- EXIST. IRRIGATION PIPE
 - - - EXIST. FENCE LINE
 - EXIST. EDGE OF ASPHALT
 - EXIST. 1' CONTOUR
 - 5390 --- EXIST. 5' CONTOUR
 - EXIST. GRAVEL ROAD



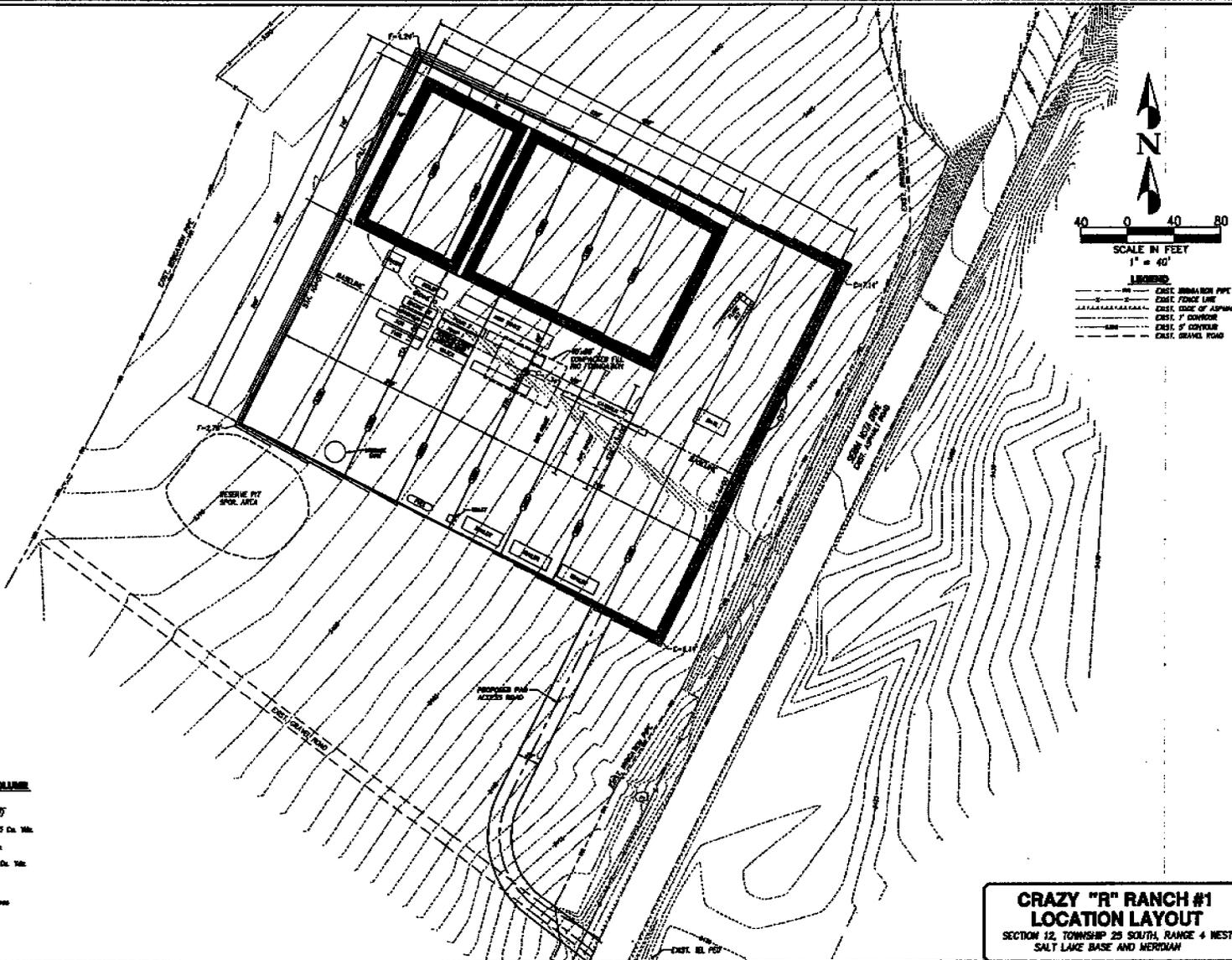
**CRAZY "R" RANCH #1
LOCATION LAYOUT**
SECTION 12, TOWNSHIP 25 SOUTH, RANGE 4 WEST
SALT LAKE BASE AND MERIDIAN

 PEPG ENGINEERING, L.L.C. 421 W. 12300 S. #400 • DRAPER, UT 84020 PH: (801) 562-2521 • FAX: (801) 562-2551			2/2
SEPTEMBER 18, 2006 PLOT DATE:	6518.0512 PROJECT NUMBER	BND5V-03A DRAWING FILE	

EXIST. WATERWORKS VOLUME
 CWT = 10,000 Cu. Yds.
 FWT = 2,000 Cu. Yds.
 TWT = 5,100 Cu. Yds. (2000)

PIV CAPACITY = 20,000 Gal.
 (20M³ PER HOUR)
 TOTAL PIV VOLUME = 6,100 Cu. Yds.
 SLOPE = 2:1
 FILL SLOPE = 2:1

EXIST. PIV AREA = 3.21 Acres
 PIV AREA = 0.53 Acres



**CRAZY "R" RANCH #1
 LOCATION LAYOUT**
 SECTION 12, TOWNSHIP 25 SOUTH, RANGE 4 WEST
 SALT LAKE BASE AND MERIDIAN

NO.	DATE	BY	REVISION

PEPG ENGINEERING, L.L.C.
 1000 S. 1000 E. SUITE 100 • P.O. BOX 17400
 SALT LAKE CITY, UT 84117-0400
 TEL: (801) 487-3300
 FAX: (801) 487-3301
 WWW.PEPG-ENGINEERING.COM
 CIVIL ENGINEERING • LAND SURVEYING • SITE DESIGN
 WITH LAND CONSTRUCTION MANAGEMENT
 LAND PLANNING • ENVIRONMENTAL

**CRAZY "R" RANCH #1
 WELL LOCATION LAYOUT
 SITE PLAN
 AND GRADING PLAN**
 PREPARED BY: [Signature]
 CHECKED BY: [Signature]
 DATE: [Date]

SEMIER
 COUNTY
 SHEET NO. **6P-1**

**WORKSHEET
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 08/22/2006

API NO. ASSIGNED: 43-041-30046

WELL NAME: CRAZY R RANCH 1
 OPERATOR: RBDR, LLC (N3105)
 CONTACT: STEVEN HASH

PHONE NUMBER: 801-561-7153

PROPOSED LOCATION:

SENE 12 250S 040W
 SURFACE: 1680 FNL 0740 FEL
 BOTTOM: 1890 FNL 0710 FEL
 COUNTY: SEVIER
 LATITUDE: 38.64467 LONGITUDE: -112.1817
 UTM SURF EASTINGS: 397163 NORTHINGS: 4277801
 FIELD NAME: WILDCAT (1)

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering	DKD	10/26/06
Geology		
Surface		

LEASE TYPE: 4 - Fee
 LEASE NUMBER: FEE
 SURFACE OWNER: 4 - Fee

PROPOSED FORMATION: NAVA
 COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

- Plat
- Bond: Fed[] Ind[] Sta[] Fee[]
(No. 1001)
- Potash (Y/N)
- Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit
(No. SEE FILE)
- RDCC Review (Y/N)
(Date: 09/06/2006)
- Fee Surf Agreement (Y/N)
- Intent to Commingle (Y/N)

LOCATION AND SITING:

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

COMMENTS: Needs Permit (09-28-06)

STIPULATIONS: 1- Spacing Strip
2- STATEMENT OF BASIS
3- Cement Strip #3A (5 1/2" production, ± 4700' MD, NAVA to Em)

T24S R4W

T24S R3W

3

2

1

6

5

CRAZY R RANCH 1



10

11

12

7

8

15

14

13

18

17

OPERATOR: RBDR LLC (N3105)

SEC: 12 T.25S R. 4W

FIELD: WILDCAT (001)

COUNTY: SEVIER

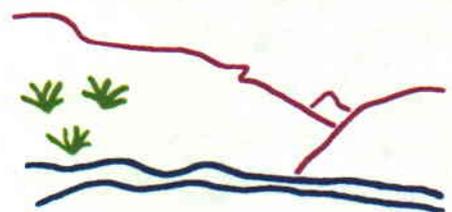
SPACING: R649-3-2 / GENERAL SITING

- Field Status**
- ABANDONED
 - ACTIVE
 - COMBINED
 - INACTIVE
 - PROPOSED
 - STORAGE
 - TERMINATED

- Unit Status**
- EXPLORATORY
 - GAS STORAGE
 - NF PP OIL
 - NF SECONDARY
 - PENDING
 - PI OIL
 - PP GAS
 - PP GEOTHERML
 - PP OIL
 - SECONDARY
 - TERMINATED

Wells Status

- 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
- DRILLING



Utah Oil Gas and Mining



PREPARED BY: DIANA WHITNEY
DATE: 22-AUGUST-2006

Application for Permit to Drill

Statement of Basis

10/11/2006

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Ownr	CBM
76	43-041-30046-00-00		OW	P	No
Operator	RBDR, LLC	Surface Owner-APD			
Well Name	CRAZY R RANCH 1	Unit			
Field	WILDCAT	Type of Work			
Location	SENE 12 25S 4W S 0 F L 0 F L GPS Coord (UTM) 397077E 4277552N				

Geologic Statement of Basis

This location is placed in the Sevier River Valley between the Pavant Range and the Sevier Plateau, near the extreme western edge of the Colorado Plateau physiographic province in western central Utah. Some people have characterized this area as being in the Basin and Range - Colorado Plateau transition zone. It is otherwise characterized as being astride the Sevier Overthrust Belt. The location is on fee land just within 2.0 miles of Joseph, Utah, and about 3/8 mile east of the Sevier River in Sevier County. This location falls right upon the Paxton Thrust fault. A well at this location will spud into a moderately permeable soil developed on Quaternary/Tertiary Alluvium. It is somewhat uncertain what strata lie beneath these deposits although the Operator has prognosticated the top of the Sevier River Formation at 750' TD and the Arapien shale at 2,900' TD. Outcrops of the Sevier River Formation are immediately at hand to the southeast. A significant near surface quality ground water resource exists in this valley with numerous underground water filings recorded within a mile of the location. The nearest drilling is about 5 miles to the northwest. Ground water resources in the area are also known to be thermal. The hole will be drilled with a fresh water and gel mud system to 2,000' TD to set the 9 5/8" surface casing. No intermediate casing will be run unless hole problems are encountered. Otherwise, if warranted by potential production, 5 1/2" production casing will be run to surface in an 8 3/4" hole and will be drilled with a saturated salt mud system. It is anticipated that this mud system is designed to deal with the evaporites of the Arapien Shale. Any water encountered in the Arapien Shale is likely to be of poor quality. A Division of Water Rights publication notes that aquifers in close proximity to the Arapien Shale are also likely to contain ground water with high TDS levels. It is not known where the Base of Moderately Saline Ground Water is but it is not unreasonable to expect a rapid transition from the better quality resource near the surface to ground water with considerably higher Total Dissolved Solids concentrations around Surface Casing depth. A casing, cementing and drilling fluid program as described above should be sufficient to control and isolate the poor quality ground waters expected to be encountered at that depth in a well at this location if sufficient good quality cement is placed to overlap the Surface and Production Casing strings.

Chris Kierst
APD Evaluator

10/10/2006
Date / Time

Surface Statement of Basis

Participating in the pre-site evaluation were; M. Jones (UDOGM), Steve Hash (RBDR), Steve Rosenzweig and Michael Labrum (Surface owners). Also in attendance was Mike Labrum (son of a landowner Location is staked to be drilled west of the town of Monroe, Utah ~3.5 miles and east of Joseph, Utah ~2.2 miles. The immediate area is predominantly farm ground and open range ground. The Sevier River lies directly west of the location ~1600' and runs basically in a south to north direction. There are presently 2 residential dwellings within ~.25 miles of the proposed location that will be affected slightly by the activities associated during the life of this well. These dwellings have individual wells for culinary water and are ~120' to 160' deep. Based on the pit evaluation ranking and score the reserve pit will be required to be lined. The new access road will cut off some of the field from irrigation water but the landowner stated that this could be worked around.

Mark Jones
Onsite Evaluator

9/28/2006
Date / Time

Application for Permit to Drill

Statement of Basis

10/11/2006

Utah Division of Oil, Gas and Mining

Page 2

Conditions of Approval / Application for Permit to Drill

Category

Condition

Pits

A synthetic liner with a minimum thickness of 12 mils shall be properly installed and maintained in the reserve pit.

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator RBDR, LLC
Well Name CRAZY R RANCH 1
API Number 43-041-30046-0 **APD No** 76 **Field/Unit** WILDCAT
Location: 1/4,1/4 SENE **Sec** 12 **Tw** 25S **Rng** 4W 0 FL 0 FL
GPS Coord (UTM) 397065 4277556 **Surface Owner**

Participants

M. Jones (UDOGM), Steve Hash (RBDR), Steve Rosenzweig and Michael Labrum (Surface owners). Also in attendance was Mike Labrum (son of a landowner).

Regional/Local Setting & Topography

Location is staked to be drilled west of the town of Monroe, Utah ~3.5 miles and east of Joseph, Utah ~2.2 miles. The immediate area is predominantly farm ground and open range ground. The Sevier River lies directly west of the location ~1600' and runs basically in a south to north direction.

Surface Use Plan

Current Surface Use

Grazing
Agricultural

New Road

Miles	Well Pad		Src Const Material	Surface Formation
0.04	Width 350	Length 400	Onsite	

Ancillary Facilities

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetland N

Sevier River would have to rise dramatically to put location in floodplain.

Flora / Fauna

Location is on vacant farm ground. Currently weeds growing in field.

Soil Type and Characteristics

sandy clay

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diversion Required N

Berm Required? N

berming would only be required for tank containment purposes if a tank battery were to be located on site.

Erosion Sedimentation Control Required? N

Paleo Survey Run? N

Paleo Potential Observed? N

Cultural Survey Run? N

Cultural Resources? N

Reserve Pit

Site-Specific Factors

Site Ranking

Distance to Groundwater (feet)	100 to 200	5
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	1320 to 5280	5
Distance to Other Wells (feet)	300 to 1320	10
Native Soil Type	Mod permeability	10
Fluid Type	TDS>10000	15
Drill Cuttings	Salt or Detrimental	10
Annual Precipitation (inches)	10 to 20	5
Affected Populations	10 to 30	6
Presence Nearby Utility Conduits	Unknown	10

Final Score 76 1 **Sensitivity Level**

Characteristics / Requirements

Dugout earthen pit (150' x 300' x 12'). Lined.

Closed Loop Mud Required? N

Liner Required? Y

Liner Thickness 12

Pit Underlayment Required? N

Other Observations / Comments

Well being drilled as a directional due to tight quarters of the property fences, private roadway, county road ROW, ect.

Mark Jones

9/28/2006

Evaluator

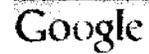
Date / Time



Online Services

Agency List

Business



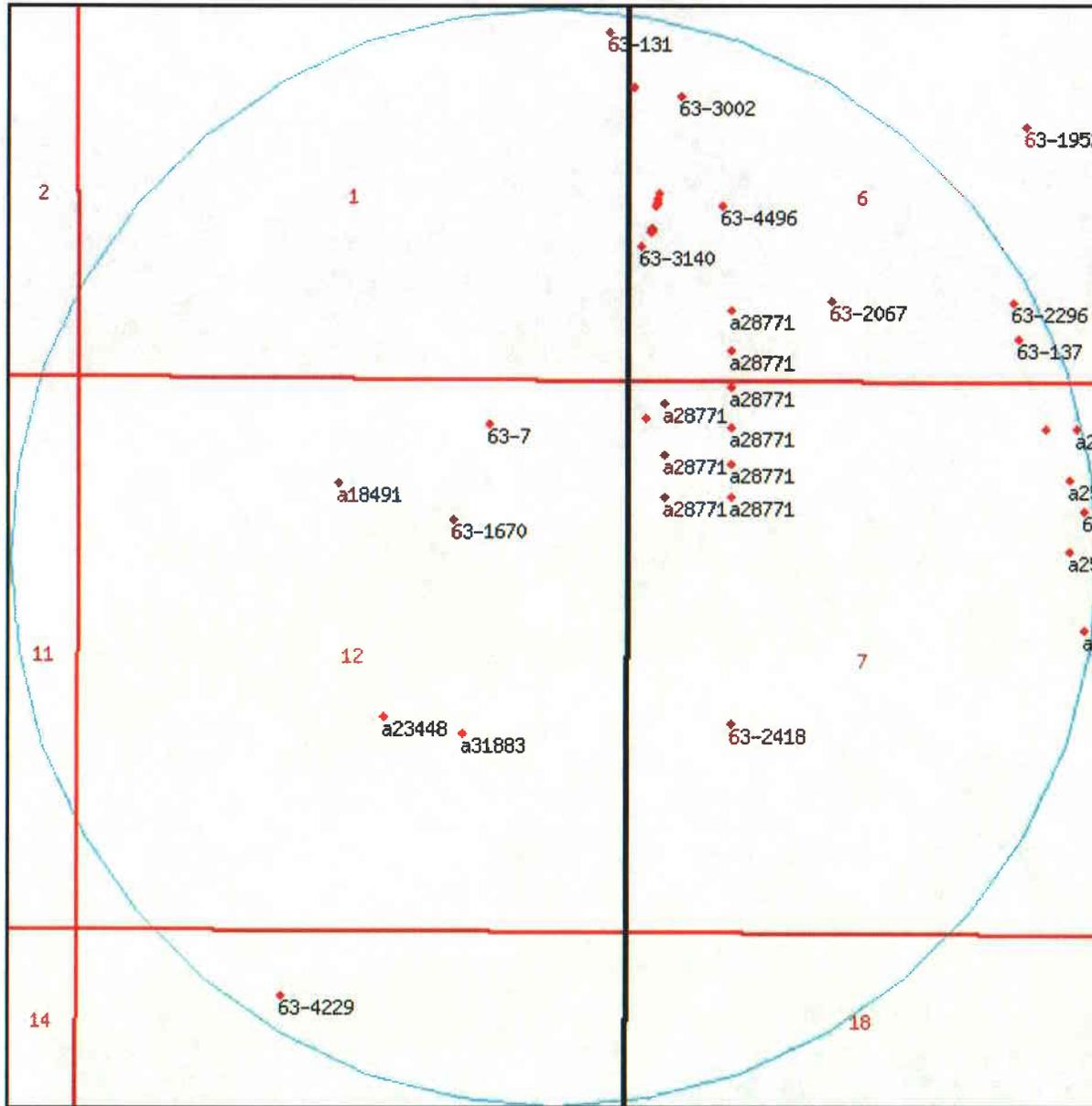
Search Utah.gov

UTAH DIVISION OF WATER RIGHTS

WRPLAT Program Output Listing

Version: 2004.12.30.00 Rundate: 10/10/2006 01:26 PM

Radius search of 5280 feet from a point S1680 W740 from the NE corner, section 12, Township 25S, Range 4W, SL b&m Criteria:wrtypes=W,C,E podtypes=all status=U,A,P usetypes=all



Water Rights

WR Number	Diversion Type/Location	Well Log	Status	Priority	Uses	CFS	ACFT	Owner Name
61-2067	Surface S400 W1380 NE 12 25S 4W SL		A	19050314	DIS	0.840	0.000	PIUTE RESERVOIR & IRRIGATION COMPANY SALINA UT 84654
61-2068	Surface S400 W1380 NE 12 25S 4W SL		A	19050314	DIS	3.000	0.000	PIUTE RESERVOIR & IRRIGATION COMPANY SALINA UT 84654
61-2070	Surface S400 W1380 NE 12 25S 4W SL		P	19050314	DIS	12.000	0.000	PIUTE RESERVOIR AND IRRIGATION COMPANY SALINA UT 84654
63-1	Rediversion S400 W1380 NE 12 25S 4W SL		P	19050314	DIS	0.000	82300.000	PIUTE RESERVOIR AND IRRIGATION COMPANY SALINA UT 84654
63-1104	Underground N1469 E213 SW 06 25S 3W SL		P	19000000	I	0.150	0.000	BROOKLYN CANAL COMPANY P.O. BOX 154
63-1105	Underground N1482 E218 SW 06 25S 3W SL		P	19000000	I	0.150	0.000	BROOKLYN CANAL COMPANY P.O. BOX 154
63-1106	Underground N1696 E248 SW 06 25S 3W SL		P	19000000	I	0.150	0.000	BROOKLYN CANAL COMPANY P.O. BOX 154
63-1107	Underground N1814 E289 SW 06 25S 3W SL		P	19000000	I	0.150	0.000	BROOKLYN CANAL COMPANY P.O. BOX 154
63-1108	Underground		P	19000000	I	0.150	0.000	BROOKLYN CANAL COMPANY

	N1766 E267 SW 06 25S 3W SL					P.O. BOX 154	
63-1109	Underground	P	19000000 I	0.150	0.000	BROOKLYN CANAL COMPANY	
	N1740 E260 SW 06 25S 3W SL					P.O. BOX 154	
63-1110	Underground	P	19000000 I	0.150	0.000	BROOKLYN CANAL COMPANY	
	N1718 E255 SW 06 25S 3W SL					P.O. BOX 154	
63-1111	Underground	P	19000000 I	0.000	0.000	BROOKLYN CANAL COMPANY	
	N1452 E204 SW 06 25S 3W SL					P.O. BOX 154	
63-1112	Underground	P	19000000 I	0.150	0.000	BROOKLYN CANAL COMPANY	
	N1449 E195 SW 06 25S 3W SL					P.O. BOX 154	
63-1113	Underground	P	19000000 I	0.150	0.000	BROOKLYN CANAL COMPANY	
	N1448 E184 SW 06 25S 3W SL					P.O. BOX 154	
63-131	Underground	P	19460524 D	0.015	0.000	DON CARLOS ANDERSON	
	S1930 W224 NE 01 25S 4W SL					ELSINORE UT 84724	
63-137	Underground	P	19460725 D	0.015	0.000	ARNOLD BARNEY	
	N454 W1483 SE 06 25S 3W SL					RFD	
63-1609	Surface	P	19170607 I	0.750	0.000	JOSEPH CONDER	
	N1700 E900 SW 06 25S 3W SL					MONROE UT 84754	
63-1670	Underground	P	19360615 D	0.114	0.000	JOSEPH E. BENZICK	
	S1310 W1728 NE 12 25S 4W SL					MONROE UT 84754	
63-1952	Underground	well info	P	19730905 DIS	0.015	1.138	CALVIN R. AND LINETTE L. CHRISTENSEN

	N2500 W1402 SE 06 25S 3W SL					1475 NORTH 2450 WEST
63-2067	Underground	P	19750731 DIS	0.015	0.000	CECIL U. PARKS
	N804 W663 S4 06 25S 3W SL					ROUTE 1 BOX 180-B
63-2090	Underground	P	19760219 DIS	0.015	0.000	RICHARD V. BAGLEY
	S337 E165 NW 07 25S 3W SL					ROUTE 1 BOX 180C
63-2227	Underground	P	19780215 DIS	0.015	2.960	TRENT A. AND GAYLIE S. ALLEN
	S2458 E27 NW 06 25S 3W SL					P.O. BOX 5
63-2296	Underground	P	19790131 DIS	0.015	0.000	EDWARD STOREY
	N811 W1532 SE 06 25S 3W SL					ROUTE 1 BOX 180 D
63-2418	Underground	A	19810401 OX	0.015	0.000	A. D. FOWLER
	N2020 E1000 SW 07 25S 3W SL					749 EAST 8080 SOUTH
63-2520	Surface	P	19780222 I	0.100	0.000	QUINN CHRISTENSEN
	N2750 E500 SW 06 25S 3W SL					ROUTE 1, BOX 124
63-2521	Surface	P	19780222 I	0.100	0.000	QUINN CHRISTENSEN
	N2750 E500 SW 06 25S 3W SL					ROUTE 1, BOX 124
63-2819	Rediversion	P	18720000 DIS	0.000	3750.000	PIUTE RESERVOIR AND IRRIGATION COMPANY
	S400 W1380 NE 12 25S 4W SL					SALINA UT 84654
63-3002	Surface	P	18740000 IS	18.920	0.000	ELSINORE CANAL COMPANY
	N2750 E500 SW 06 25S 3W SL					ELSINORE UT 84724
63-3003	Surface	P	18730000 DIS	29.034	5741.320	BROOKLYN CANAL COMPANY
	N1700 E900 SW 06 25S 3W SL					C/O PATTY BARNEY
						MONROE IRRIGATION

63-3004	Surface		P	18640000 DIOS	47.900	0.000	COMPANY MONROE UT 84754
	S400 W1380 NE 12 25S 4W SL						
63-3140	Underground		P	1880 I	1.500	0.000	BROOKLYN CANAL COMPANY P.O. BOX 154
	N1320 E100 SW 06 25S 3W SL						
63-4110	Surface		P	18730000 I	0.020	3.768	BROOKLYN CANAL COMPANY P.O. BOX 154
	N1700 E900 SW 06 25S 3W SL						
63-4203	Underground	<u>well info</u>	P	19970314 DI	0.015	1.200	LOREN MORTENSEN 2300 WEST SIERRA VISTA DRIVE
	S1202 W846 NE 07 25S 3W SL						
63-4221	Surface		P	18730000 I	0.210	37.500	BROOKLYN CANAL COMPANY P.O. BOX 154
	N1700 E900 SW 06 25S 3W SL						
63-4228	Surface		P	18730000 I	0.006	1.260	BROOKLYN CANAL COMPANY P.O. BOX 154
	N1700 E900 SW 06 25S 3W SL						
63-4229	Underground		P	18710000 DI	0.012	1.770	WELLS IRRIGATION COMPANY C/O LARRY GAY, SECRETARY
	S586 W3380 NE 13 25S 4W SL						
63-4245	Surface		P	18730000 I	0.013	2.510	BROOKLYN CANAL COMPANY P.O. BOX 154
	N1700 E900 SW 06 25S 3W SL						
63-4333	Surface		P	18730000 I	0.000	1.340	DWIGHT L. AND JULIA E. JENKINS 595 SOUTH 100 WEST
	N1700 E900 SW 06 25S 3W SL						
63-4433	Surface		P	18730000 I	0.000	1.162	BROOKLYN CANAL

						COMPANY
	N1700 E900 SW 06 25S 3W SL					P.O. BOX 154
63-4440	Surface	P	18730000 I	0.011	2.250	COAL CREEK COMPANY LIMITED PARTNERSHIP
	N1700 E900 SW 06 25S 3W SL					A NEVADA LIMITED PARTNERSHIP
63-4469	Surface	P	18730000 I	0.013	2.512	BROOKLYN CANAL COMPANY
	N1700 E900 SW 06 25S 3W SL					P.O. BOX 154
63-4495	Surface	P	18730000 IS	0.000	2.250	BROOKLYN CANAL COMPANY
	N1700 E900 SW 06 25S 3W SL					P.O. BOX 154
63-4496	Surface	P	1873 IS	0.000	2.000	BROOKLYN CANAL COMPANY
	N1700 E900 SW 06 25S 3W SL					P.O. BOX 154
63-5	Rediversion	P	19070816 DIS	200.000	9100.000	PIUTE RESERVOIR AND IRRIGATION COMPANY
	S400 W1380 NE 12 25S 4W SL					SALINA UT 84654
63-7	Surface	P	19071021 DIS	245.000	0.000	PIUTE RESERVOIR AND IRRIGATION COMPANY
	S400 W1380 NE 12 25S 4W SL					SALINA UT 84654
a18491	Surface	A	19941123 DIS	0.000	95.000	THERON MILLS
	S1000 E2500 NW 12 25S 4W SL					454 SOUTH HWY 89
a23448	Underground	<u>well</u> <u>info</u> A	19990621 D	0.002	0.250	WELLS IRRIGATION COMPANY
	N2080 E300 S4 12 25S 4W SL					JOSEPH UT 84739
a25141	Underground	A	20001218 DIS	0.067	10.500	MARSHA HUNDLEY
	S410 W1210 NE 07					1043 SOUTH 400 WEST

	25S 3W SL					
a25141	Underground S1590 W985 NE 07 25S 3W SL	A	20001218 DIS	0.067	10.500	MARSHA HUNDLEY 1043 SOUTH 400 WEST
a25141	Underground S910 W985 NE 07 25S 3W SL	A	20001218 DIS	0.067	10.500	MARSHA HUNDLEY 1043 SOUTH 400 WEST
a25141	Underground S415 W910 NE 07 25S 3W SL	A	20001218 DIS	0.067	10.500	MARSHA HUNDLEY 1043 SOUTH 400 WEST
a28771	Underground S1100 E330 NW 07 25S 3W SL	A	20040324 DI	0.044	6.900	MRL ENTERPRISES, LLC C/O MICHEAL R. LABRUM
a28771	Underground S700 E330 NW 07 25S 3W SL	A	20040324 DI	0.044	6.900	MRL ENTERPRISES, LLC C/O MICHEAL R. LABRUM
a28771	Underground S200 E330 NW 07 25S 3W SL	A	20040324 DI	0.044	6.900	MRL ENTERPRISES, LLC C/O MICHEAL R. LABRUM
a28771	Underground S1100 E990 NW 07 25S 3W SL	A	20040324 DI	0.044	6.900	MRL ENTERPRISES, LLC C/O MICHEAL R. LABRUM
a28771	Underground S780 E990 NW 07 25S 3W SL	A	20040324 DI	0.044	6.900	MRL ENTERPRISES, LLC C/O MICHEAL R. LABRUM
a28771	Underground S430 E990 NW 07 25S 3W SL	A	20040324 DI	0.044	6.900	MRL ENTERPRISES, LLC C/O MICHEAL R. LABRUM
a28771	Underground S50 E990 NW 07 25S 3W SL	A	20040324 DI	0.044	6.900	MRL ENTERPRISES, LLC C/O MICHEAL R. LABRUM
a28771	Underground N300 E990 SW 06 25S 3W SL	A	20040324 DI	0.044	6.900	MRL ENTERPRISES, LLC C/O MICHEAL R. LABRUM
a28771	Underground	A	20040324 DI	0.044	6.900	MRL ENTERPRISES, LLC

	N700 E990 SW 06 25S 3W SL						C/O MICHEAL R. LABRUM
a31685	Underground	well info	U	20060630 DIOS	0.004	1.000	MARK H. HOLMAN
	S2350 W850 NE 07 25S 3W SL						352 DAKAR ST.
a31883	Underground	well info	U	20060824 DS	0.003	0.500	WELLS IRRIGATION COMPANY
	N1920 E1050 S4 12 25S 4W SL						95 N STATE STREET

[Natural Resources](#) | [Contact](#) | [Disclaimer](#) | [Privacy Policy](#) | [Accessibility Policy](#)

STATE ACTIONS
Resource Development Coordinating Committee
Governor's Office of Planning and Budget
5110 State Office Building
SLC, UT 84114
Phone No. 537-9230

1. State Agency Oil, Gas and Mining 1594 West North Temple, Suite 1210 Salt Lake City, UT 84114-5801	2. Approximate date project will start: Upon Approval or September 5, 2006
3. Title of proposed action: Application for Permit to Drill	
4. Description of Project: RBDR, LLC proposes to drill the Crazy "R" Ranch #1 well (wildcat) on a Fee lease, Sevier County, Utah. This action is being presented to the RDCC for consideration of resource issues affecting state interests. The Division of Oil, Gas and Mining is the primary administrative agency in this action and must issue approval before operations commence.	
5. Location and detailed map of land affected (site location map required, electronic GIS map preferred) (include UTM coordinates where possible) (indicate county) 860' FNL 460' FEL, NE/4 NE/4, Section 12, Township 25 South, Range 4 West, Sevier County, Utah	
6. Possible significant impacts likely to occur: Surface impacts include up to five acres of surface disturbance during the drilling and completion phase (estimated for five weeks duration). If oil and gas in commercial quantities is discovered, the location will be reclaimed back to a net disturbance of between one and two acres – not including road, pipeline, or utility infrastructure. If no oil or gas is discovered, the location will be completely reclaimed.	
7. Identify local government affected a. Has the government been contacted? No. b. When? c. What was the response? d. If no response, how is the local government(s) likely to be impacted?	
8. For acquisitions of land or interests in land by DWR or State Parks please identify state representative and state senator for the project area. Name and phone number of state representative, state senator near project site, if applicable: a. Has the representative and senator been contacted? N/A	
9. Areawide clearinghouse(s) receiving state action: (to be sent out by agency in block 1) Six County Association of Governments	
10. For further information, contact: Diana Whitney Phone: (801) 538-5312	11. Signature and title of authorized officer  Gil Hunt, Associate Director Date: August 22, 2006

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

FORM 3

AMENDED REPORT
(highlight changes)

APPLICATION FOR PERMIT TO DRILL				5. MINERAL LEASE NO: <i>NA</i>	6. SURFACE: Fee
1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>				7. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA	
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input type="checkbox"/> OTHER <u>EXPL</u> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>				8. UNIT or CA AGREEMENT NAME: NA	
2. NAME OF OPERATOR: RBDR, LLC				9. WELL NAME and NUMBER: Crazy "R" Ranch #1	
3. ADDRESS OF OPERATOR: 9235-A So. Redwood CITY W. Jordan STATE UT ZIP 84088			PHONE NUMBER: (801) 561-7153	10. FIELD AND POOL, OR WILDCAT: Wildcat	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 860' FNL & 460' FEL of Sec 12 T25S R04W <i>397163X 38.644665 4277801Y -112-181671</i> AT PROPOSED PRODUCING ZONE: 860' FNL & 46-0' FEL of Sec 12 T25S R04W				11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 12 25S 04W	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 2 miles east from Joseph, UT				12. COUNTY: Sevier	13. STATE: UTAH
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 460'		16. NUMBER OF ACRES IN LEASE: 280+/-		17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) none		19. PROPOSED DEPTH: 8,600		20. BOND DESCRIPTION: CD	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 5456' GR		22. APPROXIMATE DATE WORK WILL START: 11/1/2006		23. ESTIMATED DURATION: 60 days	

24. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT			
30"	20"	X42	78	120	ready mix	10 cu yd		
12-1/4'	9-5/8"	J55	36	2,000	lead CBM lite	250sx	4.12	10.5
					tail Premium	275sx	1.19	15.6
8-3/4"	5-1/2"	N80	17	8,600	50:50 POZ	550sx	1.21	14.35

25. ATTACHMENTS

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

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

NAME (PLEASE PRINT) Steven R. Hash, P.E., EXACT Engineering, Inc TITLE Consulting Engineer
SIGNATURE *Steven R. Hash* DATE 8/18/2006

(This space for State use only)

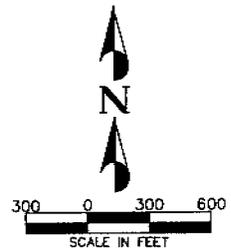
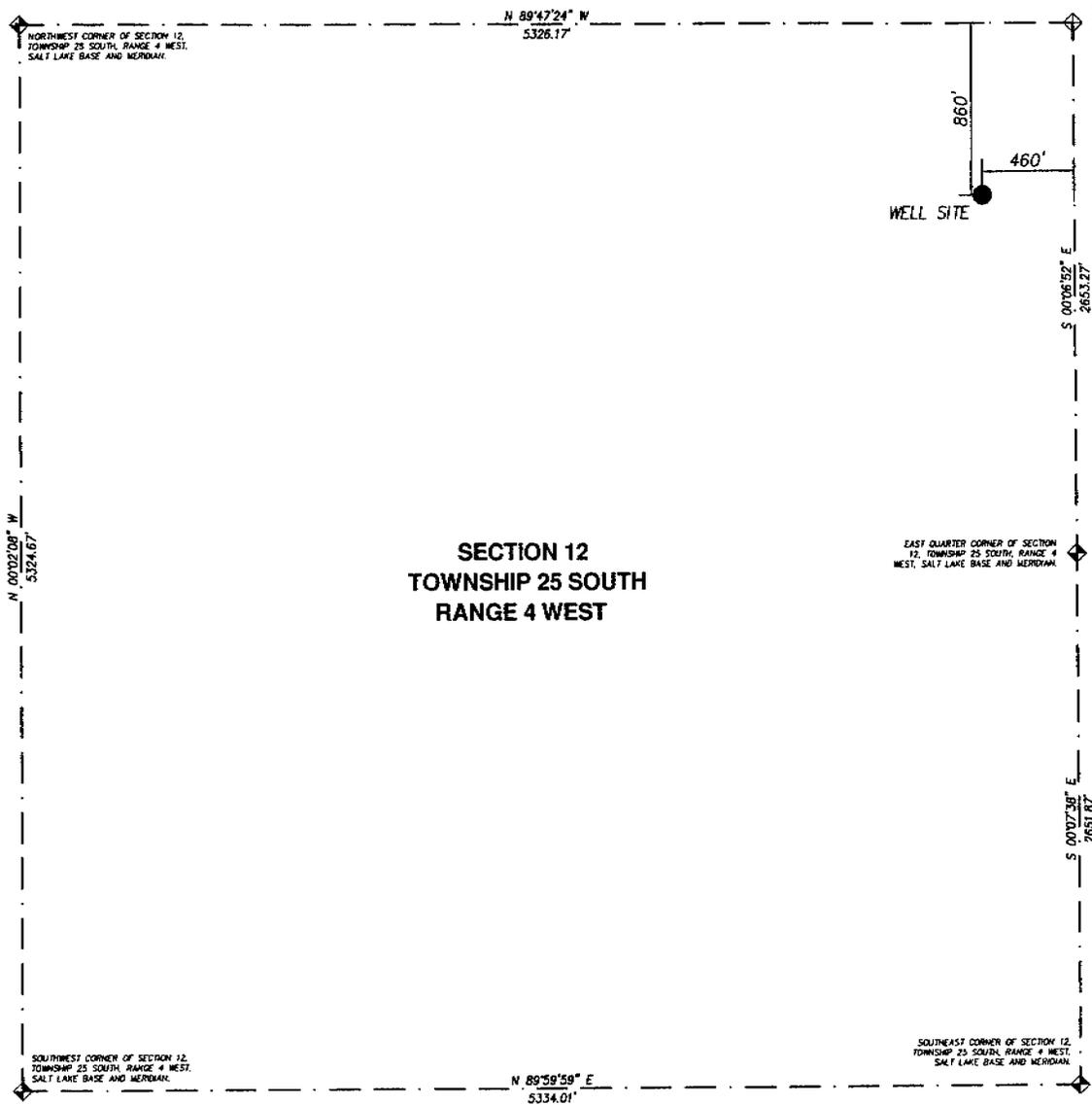
API NUMBER ASSIGNED: 43-041-30046

APPROVAL:

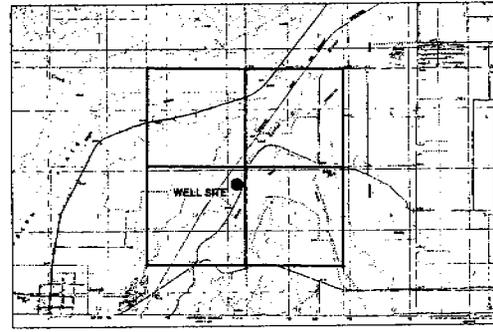
RECEIVED
AUG 22 2006

DIV. OF OIL, GAS & MINING

CONFIDENTIAL

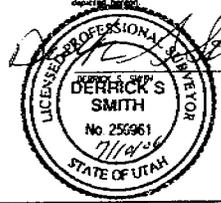


NOTES
1. MEASUREMENTS SHOWN ON SECTION LINES
ARE REFERENCED FROM RECORD OF SURVEYS
COMPLETED BY JONES & DEWILLE ENGINEERING
IN NOVEMBER, 2005 AND RECORDED AS ENTRY
NO. 0038462 AND ENTRY NO. 0038463 IN THE
SEWER COUNTY RECORDERS OFFICE.



CLIENT
REOR LLC
9235 SO. REDWOOD ROAD
WEST JORDAN, UTAH 84068
CONTACT: ROTH HANSEN
(801) 561-7153

SURVEYORS CERTIFICATE
I, Derrick S. Smith, depose and say that I am a Professional Land
Surveyor as prescribed by Utah State law and that I hold
Certificate No. 259961 in accordance with Title 58, Chapter 22,
Professional Engineers and Professional Land Surveyors Licensing
Act. I further state that the well located above was surveyed
under my direct supervision and the results of that survey are
correct to the best of my knowledge.



DATE	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY	DATE
PEPG ENGINEERING, L.L.C.					
777 W. 1300 E. 200 • PAPER 17 2400 PM (801) 967-5801 • FAX (801) 562-2559 CIVIL ENGINEERING LAND SURVEYING GPS WETLANDS CONSTRUCTION MANAGEMENT LAND PLANNING ENVIRONMENTAL					
CRAZY 'R' #1					
WELL LOCATION SURVEY					
DATE	PROJECT NUMBER	DRAWING NO.	DATE		
7/10/06					
SEVIER COUNTY					
SHEET NO. 1					

T24S R4W

T24S R3W

3

2

1

6

5

CRAZY R
RANCH 1
⊙

10

11

12

7

8

15

14

13

18

17

OPERATOR: RBDR LLC (N3105)

SEC: 12 T.25S R. 4W

FIELD: WILDCAT (001)

COUNTY: SEVIER

SPACING: R649-3-2 / GENERAL SITING

Field Status

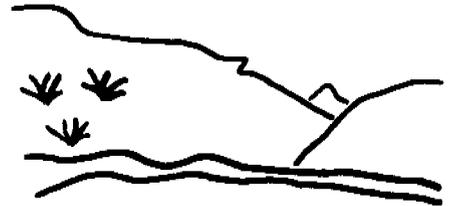
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- PROPOSED
- STORAGE
- TERMINATED

Unit Status

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

Wells Status

- 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
- DRILLING



Utah Oil Gas and Mining



PREPARED BY: DIANA WHITNEY
DATE: 22-AUGUST-2006

Casing Schematic

Surface

127
181

BHP

$(0.052)(8499)(10.6) = 4685 \text{ psi}$
anticipate 3000

Gas

$(.12)(8499) = 1020 \text{ psi}$
 $4685 - 1020 = 3665 \text{ psi}$
MASP 9.5/8" MW 9.2 Frac 19.3

Wet

$(.22)(8499) = 1870$
 $4685 - 1870 = 2815 \text{ psi}$

BOPE - 3M ✓

Burst - 3520

$70\% = 2464 \text{ psi}$

Max @ csg shoe

$8499 - 2000 = 6499$
 $.22(6499) = 1430$
 $4685 - 1430 = 3255 \text{ psi}$

Test to 2464 psi ✓
(± 1600 psi surf. press.)

⇒ Slip cmt on prod. (caliper log will be run) 5-1/2" MW 10.6

TOC @ 0.

-750' Sevier River

Surface
2000. MD
2000. TVD

-2900' Arapahoe

-5200' Navajo

TOC @ 6652.

Production
8507. MD
8499. TVD

TOC @ 5872' v/08 west

* Cement will be brought above top of Navajo → see encl. dated 10/25
Fault play, BMS unknown

Well name:	2006-10 RBDR LLC Crazy R Ranch 1-12-25-4		
Operator:	RBDR, LLC	Project ID:	43-041-30046
String type:	Surface		
Location:	Sevier County		

Design parameters:

Collapse

Mud weight: 9.200 ppg
 Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
 Surface temperature: 65 °F
 Bottom hole temperature: 93 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 185 ft

Cement top: Surface

Burst

Max anticipated surface pressure: 1,724 psi
 Internal gradient: 0.120 psi/ft
 Calculated BHP 1,964 psi

No backup mud specified.

Tension:

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

Tension is based on air weight.
 Neutral point: 1,728 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 8,499 ft
 Next mud weight: 10.600 ppg
 Next setting BHP: 4,680 psi
 Fracture mud wt: 19.250 ppg
 Fracture depth: 1,959 ft
 Injection pressure: 1,959 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	2000	9.625	36.00	J-55	ST&C	2000	2000	8.796	868.1
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	956	2020	2.113 ✓	1964	3520	1.79 ✓	72	394	5.47 J ✓

Prepared by: Helen Sadik-Macdonald
 Div of Oil, Gas & Minerals

Phone: 801-538-5357
 FAX: 801-359-3940

Date: October 23, 2006
 Salt Lake City, Utah

ENGINEERING STIPULATIONS: NONE

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
 Collapse is based on a vertical depth of 2000 ft, a mud weight of 9.2 ppg. The casing is considered to be evacuated for collapse purposes.
 Burst strength is not adjusted for tension.

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

2006-10 RBDR LLC Crazy R Ranch 1-12-25-4

Well name:

Operator: **RBDR, LLC**
String type: Intermediate *(if necessary)*

Project ID:
43-041-30046

Location: Sevier County

Design parameters:

Collapse

Mud weight: 9.500 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 65 °F
Bottom hole temperature: 138 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,500 ft

Cement top: Surface

Burst

Max anticipated surface pressure: 2,689 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 3,312 psi

No backup mud specified.

Tension:

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

Tension is based on air weight.
Neutral point: 4,456 ft

Directional well information:

Kick-off point 2000 ft
Departure at shoe: 148 ft
Maximum dogleg: .17 °/100ft
Inclination at shoe: 4.72 °

Re subsequent strings:

Next setting depth: 8,499 ft
Next mud weight: 8,400 ppg
Next setting BHP: 3,709 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 8,499 ft
Injection pressure: 8,499 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	5200	7	23.00	J-55	ST&C	5195	5200	6.25	1149.4
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	2564	3267	1.274 ✓	3312	4360	1.32 ✓	119	284	2.38 J ✓

Prepared by: Helen Sadik-Macdonald
Div of Oil, Gas & Minerals

Phone: 801-538-5357
FAX: 801-359-3940

Date: October 26, 2006
Salt Lake City, Utah

ENGINEERING STIPULATIONS: NONE

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
Collapse is based on a vertical depth of 5195 ft, a mud weight of 9.5 ppg. The casing is considered to be evacuated for collapse purposes.
Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

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

Well name:	2006-10 RBDR LLC Crazy R Ranch 1-12-25-4		
Operator:	RBDR, LLC	Project ID:	43-041-30046
String type:	Production		
Location:	Sevier County		

Design parameters:

Collapse

Mud weight: 10.600 ppg
 Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 2,810 psi
 Internal gradient: 0.220 psi/ft
 Calculated BHP: 4,680 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor: 1.125

Burst:

Design factor: 1.00

Tension:

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

Tension is based on air weight.
 Neutral point: 7,141 ft

Environment:

H2S considered? No
 Surface temperature: 65 °F
 Bottom hole temperature: 184 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 1,500 ft

Cement top: 6,652 ft

Directional Info - Build & Hold

Kick-off point: 2000 ft
 Departure at shoe: 284 ft
 Maximum dogleg: .17 °/100ft
 Inclination at shoe: 0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	8507	5.5	17.00	N-80	LT&C	8499	8507	4.767	1110.4
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	4680	6286	1.343 ✓	4680	7740	1.65 ✓	144	348	2.41 J ✓

Prepared by: Helen Sadik-Macdonald
 Div of Oil, Gas & Minerals

Phone: 801-538-5357
 FAX: 801-359-3940

Date: October 23, 2006
 Salt Lake City, Utah

ENGINEERING STIPULATIONS: NONE

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
 Collapse is based on a vertical depth of 8499 ft, a mud weight of 10.6 ppg. The casing is considered to be evacuated for collapse purposes.
 Burst strength is not adjusted for tension.
 Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

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

From: Robert Clark
To: Whitney, Diana
Date: 8/28/2006 2:49:59 PM
Subject: RDCC short turn around responses

R B DR
43041-30034

The following comments are provided in response to short turn around items **RDCC #6950** through **RDCC #6952**, and **RDCC #6988** through **RDCC # 6990**.

RDCC #6950, Comments begin: The Houston Exploration Company's proposal to drill the **Squaw Ridge 14-16-7-25** wildcat well, in Uintah County, may require a permit, known as an Approval Order, from the Executive Secretary of the Air Quality Board. If any compressor or pump stations are constructed at the site, a permit application, known as a Notice of Intent (NOI), should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, Salt Lake City, Utah, 84116 for review according to the Utah Air Quality Rule R307-401. Permit: Notice of Intent and Approval Order. A copy of the rules is found at www.rules.utah.gov/publicat/code/r307/r307.htm . The proposed project, in Uintah County, is also subject to Utah Air Quality Rule R307-205-5, Fugitive Dust, due to the fugitive dust that is generated during the excavating phases of the project. These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Executive Secretary of the Air Quality Board, but steps need to be taken to minimize fugitive dust, such as watering and/or chemical stabilization, providing vegetative or synthetic cover or windbreaks. A copy of the rules may be found at www.rules.utah.gov/publicat/code/r307/r307.htm . **Comments end.**

RDCC # 6951, Comments begin: The Enduring Resources, LLC proposal to drill the **Southam Canyon 10-25-44-32** wildcat well, in Uintah County, may require a permit, known as an Approval Order, from the Executive Secretary of the Air Quality Board. If any compressor or pump stations are constructed at the site, a permit application, known as a Notice of Intent (NOI), should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, Salt Lake City, Utah, 84116 for review according to the Utah Air Quality Rule R307-401. Permit: Notice of Intent and Approval Order. A copy of the rules is found at www.rules.utah.gov/publicat/code/r307/r307.htm . The proposed project, in Uintah County, is also subject to Utah Air Quality Rule R307-205-5, Fugitive Dust, due to the fugitive dust that is generated during the excavating phases of the project. These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Executive Secretary of the Air Quality Board, but steps need to be taken to minimize fugitive dust, such as watering and/or chemical stabilization, providing vegetative or synthetic cover or windbreaks. A copy of the rules may be found at www.rules.utah.gov/publicat/code/r307/r307.htm . **Comments End.**

RDCC #6952, Comments begin: The Enduring Resources, LLC proposal to drill the **Buck Camp 12-22-14-2** wildcat well, in Uintah County, may require a permit, known as an Approval Order, from the Executive Secretary of the Air Quality Board. If any compressor or pump stations are constructed at the site, a permit application, known as a Notice of Intent (NOI), should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, Salt Lake City, Utah, 84116 for review according to the Utah Air Quality Rule R307-401. Permit: Notice of Intent and Approval Order. A copy of the rules is found at www.rules.utah.gov/publicat/code/r307/r307.htm . The proposed project, in Uintah County, is also subject to Utah Air Quality Rule R307-205-5, Fugitive Dust, due to the fugitive dust that is generated during the excavating phases of the project. These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Executive Secretary of the Air Quality Board, but steps need to be taken to minimize fugitive dust, such as watering and/or chemical stabilization, providing vegetative or synthetic cover or windbreaks. A copy of the rules may be found at www.rules.utah.gov/publicat/code/r307/r307.htm . **Comments end.**

RDCC #6988, Comments begin: The Houston Exploration Company's proposal to drill the **Gusher 13-11-5-19** wildcat well, in Uintah County, may require a permit, known as an Approval Order, from the Executive Secretary of the Air Quality Board. If any compressor or pump stations are constructed at the site, a permit application, known as a Notice of Intent (NOI), should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, Salt Lake City, Utah, 84116 for review according to the Utah Air Quality Rule R307-401. Permit: Notice of Intent and Approval Order. A copy of the rules is found at www.rules.utah.gov/publicat/code/r307/r307.htm . The proposed project, in Uintah County, is also subject to Utah Air Quality Rule R307-205-5, Fugitive Dust, due to the fugitive dust that is generated during the excavating phases of the project. These rules apply to construction activities that disturb an

area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Executive Secretary of the Air Quality Board, but steps need to be taken to minimize fugitive dust, such as watering and/or chemical stabilization, providing vegetative or synthetic cover or windbreaks. A copy of the rules may be found at www.rules.utah.gov/publicat/code/r307/r307.htm . **Comments end. RDCC # 6989, Comments begin:** The Enduring Resources, LLC proposal to drill the **Buck Camp 12-22-23-2** wildcat well, in Uintah County, may require a permit, known as an Approval Order, from the Executive Secretary of the Air Quality Board. If any compressor or pump stations are constructed at the site, a permit application, known as a Notice of Intent (NOI), should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, Salt Lake City, Utah, 84116 for review according to the Utah Air Quality Rule R307-401. Permit: Notice of Intent and Approval Order. A copy of the rules is found at www.rules.utah.gov/publicat/code/r307/r307.htm . The proposed project, in Uintah County, is also subject to Utah Air Quality Rule R307-205-5, Fugitive Dust, due to the fugitive dust that is generated during the excavating phases of the project. These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Executive Secretary of the Air Quality Board, but steps need to be taken to minimize fugitive dust, such as watering and/or chemical stabilization, providing vegetative or synthetic cover or windbreaks. A copy of the rules may be found at www.rules.utah.gov/publicat/code/r307/r307.htm **Comments end. RDCC # 6990, Comments begin:** The RBDR, LLC proposal to drill the **Crazy "R" Ranch #1** wildcat well, in Sevier County, may require a permit, known as an Approval Order, from the Executive Secretary of the Air Quality Board. If any compressor or pump stations are constructed at the site, a permit application, known as a Notice of Intent (NOI), should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, Salt Lake City, Utah, 84116 for review according to the Utah Air Quality Rule R307-401. Permit: Notice of Intent and Approval Order. A copy of the rules is found at www.rules.utah.gov/publicat/code/r307/r307.htm . The proposed project, in Uintah County, is also subject to Utah Air Quality Rule R307-205-5, Fugitive Dust, due to the fugitive dust that is generated during the excavating phases of the project. These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Executive Secretary of the Air Quality Board, but steps need to be taken to minimize fugitive dust, such as watering and/or chemical stabilization, providing vegetative or synthetic cover or windbreaks. A copy of the rules may be found at www.rules.utah.gov/publicat/code/r307/r307.htm **Comments end.** Robert Clark Division of Air Quality 536-4435

CC: Mcneill, Dave; Wright, Carolyn



State of Utah

**Department of
Natural Resources**

MICHAEL R. STYLER
Executive Director

**Division of
Oil, Gas & Mining**

JOHN R. BAZA
Division Director

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

October 26, 2006

RBDR, LLC
9235-A So. Redwood
West Jordan, UT 84088

Re: Crazy R Ranch 1 Well, 1680' FNL, 740' FEL, SE NE, Sec. 12, T. 25 South,
R. 4 West, Bottom Location 1890' FNL, 770' FEL, SE NE, Sec. 12, T. 25 South,
R. 4 West, Sevier County, Utah

Gentlemen:

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

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-041-30046.

Sincerely,

Gil Hunt
Associate Director

pab
Enclosures

cc: Sevier County Assessor

Operator: RBDR, LLC
Well Name & Number Crazy R Ranch 1
API Number: 43-041-30046
Lease: Fee

Location: SE NE Sec. 12 T. 25 South R. 4 West
Bottom Location: SE NE Sec. 12 T. 25 South R. 4 West

Conditions of Approval

1. General

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

2. Notification Requirements

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

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

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

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

3. Reporting Requirements

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

4. In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

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

6. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)
7. Cement volume for the 5 1/2" production string shall be determined from actual hole diameter in order to place cement from the pipe setting depth back to $\pm 4700'$ MD in order to adequately isolate the Navajo formation.
8. 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.
9. Operator shall comply with applicable recommendations resulting from Resource Development Coordinating Committee review. Statements attached.

CONFIDENTIAL

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: RBDR, LLC

Well Name: CRAZY R RANCH 1

Api No: 43-041-30046 Lease Type: FEE

Section 12 Township 25S Range 04W County SEVIER

Drilling Contractor PETE MARTIN'S RIG # RATHOLE

SPUDDED:

Date 10/30/06

Time _____

How DRY

Drilling will Commence: _____

Reported by STEVE HASH

Telephone # _____

Date 11/01/06 Signed CHD

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

FORM 6

ENTITY ACTION FORM

Operator: RBDR, LLC Operator Account Number: N 3105
Address: 9235-A South Redwood Road
city West Jordan
state UT zip 84088 Phone Number: (801) 561-7153

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304130046	Crazy R Ranch #1		SENE	12	25S	4W	Sevier
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	15773	10/30/2006		11/8/06		
Comments: <u>NAVA</u>							

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:							

RECEIVED
NOV 06 2006

DIV. OF OIL, GAS & MINING

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)

Steven R Hash - EXACT Engineering Inc

Name (Please Print) Steven R. Hash
Signature (918) 599-9400
Engineering Consultant Date 11/6/2006
Title Date

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

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: FEE
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
7. UNIT or CA AGREEMENT NAME: N/A
8. WELL NAME and NUMBER: Crazy R Ranch #1
9. API NUMBER: 4304130046
10. FIELD AND POOL, OR WILDCAT: Wildcat

1. TYPE OF WELL OIL WELL [] GAS WELL [] OTHER Wildcat

2. NAME OF OPERATOR: RBDR, LLC

3. ADDRESS OF OPERATOR: 9235-A So Redwood CITY West Jordan STATE UT ZIP 84088 PHONE NUMBER: (801) 561-7153

4. LOCATION OF WELL FOOTAGES AT SURFACE: 1680' FNL & 740' FEL of Sec 12 T25S R04W COUNTY: Sevier QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SENE 12 25S 04W STATE: UTAH

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

Table with columns: TYPE OF SUBMISSION, TYPE OF ACTION. Includes checkboxes for NOTICE OF INTENT, SUBSEQUENT REPORT, ACIDIZE, ALTER CASING, CASING REPAIR, CHANGE TO PREVIOUS PLANS, CHANGE TUBING, CHANGE WELL NAME, CHANGE WELL STATUS, COMMINGLE PRODUCING FORMATIONS, CONVERT WELL TYPE, DEEPEN, FRACTURE TREAT, NEW CONSTRUCTION, OPERATOR CHANGE, PLUG AND ABANDON, PLUG BACK, PRODUCTION (START/RESUME), RECLAMATION OF WELL SITE, RECOMPLETE - DIFFERENT FORMATION, REPERFORATE CURRENT FORMATION, SIDETRACK TO REPAIR WELL, TEMPORARILY ABANDON, TUBING REPAIR, VENT OR FLARE, WATER DISPOSAL, WATER SHUT-OFF, OTHER.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. PLEASE MAINTAIN THE ENCLOSED INFORMATION CONFIDENTIAL - THANK YOU Intent: Plug & Abandon Existing conditions: 3/1/2007; 9-5/8" surface casing at 1230' cemented to surface; 8-3/4" hole depth 7182' Proposed: permanently abandon the wellbore per UDOGM instructions this date received verbally from Dustin Doucet, DOGM Engineer. Pump 200 ft cmt plug #1 thru drill pipe from 2800' to 2600'; Pump 200 ft cmt plug #2 thru drill pipe across 9-5/8" csg shoe @ 1230'; tag with DP weight Pump 100 ft cmt plug at surface Weld on ID plate; dress location

RECEIVED JUN 01 2007 DIV. OF OIL, GAS & MINING

NAME (PLEASE PRINT) Steven R Hash - EXACT Engineering Inc TITLE Petroleum Engineering Consultant (918) 599-9400 SIGNATURE [Signature] DATE 5/29/2007

(This space for State use only) APPROVED BY [Signature] OF UTAH DIVISION OF OIL, GAS, AND MINING DATE: 6/18/07 BY: [Signature] (See instructions on Reverse Side) * Approval given 3/11/07 via email (attached) COPY SENT TO OPERATOR Date: 8/17/07 Initials: [Initials] (5/2000) CONFIDENTIAL

From: Dustin Doucet
To: Hash, Steve
Date: 3/1/2007 9:42 AM
Subject: Re: RBDR Crazy R Ranch #1 P&A

CC: Jarvis, Dan; Jones, Mark
Steve,

In your message, you mentioned a change to weathered volcanics at 3000'. As a lot of the upper volcanics are likely fractured/porous, I think a 200' plug across that change at 3000' would isolate any possible uphole freshwater aquifers from potential issues from below. Then a 200' across the shoe and a 100' plug at surface would suffice. Give me a call to discuss if you have questions. Thanks.

Dustin

Dustin K. Doucet
Petroleum Engineer
Utah Division of Oil, Gas and Mining
Oil and Gas Program
1594 West North Temple, Suite 1210
Salt Lake City, UT 84116

Phone: (801) 538-5281
fax: (801) 359-3940
email: dustindoucet@utah.gov

>>> "Steve Hash" <SteveHash@exactengineering.com> 3/1/2007 9:14 AM >>>

We have discontinued drilling at 7182' and plan to P&A this evening. 9-5/8" surface csg is set at 1230'. There were no porosity zones, water flows, or lost circulation. We drilled primarily volcanics and granite to TD. Electric logs were not run but we have a mud log. We propose leaving the 8.8ppg mud in the hole and pumping a 300' cement plug across the 9-5/8" shoe from 1330' to 1030'. WOC then tag with drill pipe weight. Leave 8.8 ppg mud to surface. We'll then release the rig and after rig move out pump a cement plug from 40 to 4' bgl, cut off csg and weld on plate. Please advise, thanks

Steve

Steven R. Hash

EXACT Engineering, Inc.

415 S. Boston, Suite 734

Tulsa, OK 74103

(918) 599-9400 office (918) 599-9401 office fax

(918) 599-9801 direct (801) 640-7470 mobil fax

email: stevehash@exactengineering.com
<<mailto:stevehash@exactengineering.com>>

From: Dustin Doucet
To: Daniels, Carol
Date: 5/30/2007 8:44 AM
Subject: Fwd: RBDR,LLC - CRR#1 - form 8
Attachments: 03 final UDOGM filing.zip

FYI - Original coming in mail

>>> "Steve Hash" <SteveHash@exactengineering.com> 5/30/2007 1:05 AM >>>

Dustin, In accordance with Rule R649-3-21, an original and one copy of the P&A Sundry Notice as well as the Well Completion Report & Log for the subject well is being sent to you by express mail. Attached is an electronic version FYI. Thanks

Steve

Steven R. Hash, P.E.

EXACT Engineering, Inc.

415 S. Boston, Suite 734

Tulsa, OK 74103

office (918) 599-9400 ofc fax (918) 599-9401

direct (918) 599-9801 cellular (918) 629-9801

mobile fax (801) 640-7470

stevehash@exactengineering.com

www.exactengineering.com

EXACT Engineering, Inc.

www.exactengineering.com

415 S. Boston Ave., Suite 734, Tulsa, OK 74103 • (918) 599-9400 • (918) 599-9401 (fax)

Steven R. Hash, P.E.
Registered Professional Engineer
stevehash@exactengineering.com

CONFIDENTIAL

May 29, 2007

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

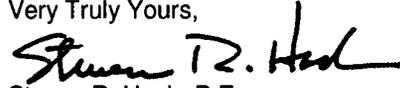
Re: Completion Report (form 8) - RBDR, LLC
Crazy "R" Ranch #1
Sec 12 T25S - R04W
Sevier County, UT

Gentlemen,

On behalf of RBDR, LLC, 9235-A South Redwood Road, West Jordan, Utah 84088 (801) 561-7153, please find enclosed the original and one copy of our Sundry Notice to Plug (form 9) and Well Completion Report and Log (form 8) for the subject well which was drilled as a dryhole.

Please accept this letter as RBDR, LLC's written request for confidential treatment of all information contained herein and pertaining to this report. Please contact the undersigned if you have questions or need additional information.

Very Truly Yours,



Steven R. Hash, P.E.
Consulting Engineer

copy to: Roy Hansen, RBDR, LLC
file

RECEIVED

JUN 01 2007

DIV. OF OIL, GAS & MINING

Petroleum Engineering Consulting, Personnel & Jobsite Supervision
complete well design, construction & management, drilling, completion, production, pipelines, appraisals,
due diligence, acquisitions, procedures, temporary personnel and field supervision

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

AMENDED REPORT FORM 8
(highlight changes)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL GAS WELL DRY OTHER _____

b. TYPE OF WORK: NEW WELL HORIZ. LATS. DEEP-EN RE-ENTRY DIFF. RESVR. OTHER _____

2. NAME OF OPERATOR: RBDR, LLC

3. ADDRESS OF OPERATOR: 9235-A So Redwood CITY West Jordan STATE UT ZIP 84088 PHONE NUMBER: (801) 561-7153

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 1680' FNL & 740' FEL of Sec 12 T25S R04W
AT TOP PRODUCING INTERVAL REPORTED BELOW: NA
AT TOTAL DEPTH: 1918' FNL & 764' FEL of Sec 12 T25S R04W

5. LEASE DESIGNATION AND SERIAL NUMBER: FEE

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA

7. UNIT or CA AGREEMENT NAME: NA

8. WELL NAME and NUMBER: Crazy R Ranch #1

9. API NUMBER: 4304130046

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SENE 12 25S 04W

12. COUNTY: Sevier 13. STATE: UTAH

14. DATE SPUDDED: 10/30/2006 15. DATE T.D. REACHED: 2/28/2007 16. DATE COMPLETED: 3/2/2007 ABANDONED READY TO PRODUCE

17. ELEVATIONS (DF, RKB, RT, GL): GL 5401; KB 5423

18. TOTAL DEPTH: MD 7,182 TVD 7,172 19. PLUG BACK T.D.: MD TVD 20. IF MULTIPLE COMPLETIONS, HOW MANY? * 21. DEPTH BRIDGE MD PLUG SET: TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each): NO Electric logs; mud log only

23. WAS WELL CORED? NO YES (Submit analysis)
WAS DST RUN? NO YES (Submit report)
DIRECTIONAL SURVEY? NO YES (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
12-1/4"	9.625 J55	36.0	26	1,230		type 3 195	144		0
						type5 215	45		0
						neat 180	38	surface	0
8-3/4"	none								

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
none								

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) none				
(B)				
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
none	

29. ENCLOSED ATTACHMENTS:

- ELECTRICAL/MECHANICAL LOGS GEOLOGIC REPORT DST REPORT DIRECTIONAL SURVEY
 SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION CORE ANALYSIS OTHER: mud log

30. WELL STATUS:

Plugged

31. INITIAL PRODUCTION

INTERVAL A (As shown in Item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:

INTERVAL B (As shown in Item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:

INTERVAL C (As shown in Item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:

INTERVAL D (As shown in Item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

33. 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.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
none					

35. ADDITIONAL REMARKS (Include plugging procedure)

73sx (200') 2792-2592; 115sx (300') 1331-1031 (shoe @ 1230); 30sx (80') 80' to surf; weld on cap

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

NAME (PLEASE PRINT) Steven R Hash - EXACT Engineering Inc

TITLE Consulting Petroleum Engineer (918) 599-9400

SIGNATURE *Steven R. Hash*

DATE 5/29/2007

This report must be submitted within 30 days of

- completing or plugging a new well
- reentering a previously plugged and abandoned well
- drilling horizontal laterals from an existing well bore
- significantly deepening an existing well bore below the previous bottom-hole depth
- recompleting to a different producing formation
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top - Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

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

Phone: 801-538-5340
Fax: 801-359-3940

CONFIDENTIAL

Job Number: CA-07003	State/Country: Sevier
Company: RBDR LLC	Declination: 12.41
Lease/Well: Crazy R Ranch #1	Grid: -0.44
Location:	File name: H:\CRR#1.SVY
Rig Name: DHS #11	Date/Time: 30-May-07 / 00:32
RKB: 5421	Curve Name: Interpolated from:
G.L. or M.S.L.:	

EXACT Engineering Inc

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 188.13
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.40	37.40	100.00	.28	.21	-.30	.35	37.40	.40
200.00	.80	37.40	199.99	1.11	.85	-1.22	1.40	37.40	.40
300.00	1.28	44.09	299.98	2.49	1.94	-2.74	3.16	37.99	.49
400.00	1.50	30.29	399.94	4.30	3.96	-4.81	5.84	42.67	.40
500.00	1.76	29.96	499.90	6.74	5.35	-7.43	8.61	38.45	.26
600.00	2.21	38.09	599.83	9.78	7.42	-10.73	12.28	37.20	.54
700.00	1.27	60.61	699.79	11.69	9.45	-12.91	15.04	38.95	1.15
800.00	1.53	76.97	799.76	12.61	11.82	-14.16	17.29	43.15	.47
900.00	1.37	94.58	899.73	12.70	14.31	-14.60	19.13	48.41	.47
1000.00	1.45	83.61	999.70	12.60	16.65	-14.83	20.88	52.89	.28
1100.00	1.84	72.68	1099.66	13.42	19.49	-16.04	23.66	55.45	.50
1200.00	1.90	76.94	1199.60	14.24	22.67	-17.30	26.77	57.87	.15
1300.00	1.90	80.63	1299.55	14.88	25.92	-18.40	29.88	60.14	.12
1400.00	2.18	83.00	1399.48	15.38	29.42	-19.38	33.19	62.41	.30
1500.00	2.28	84.08	1499.41	15.84	33.31	-20.39	36.89	64.57	.11
1600.00	2.55	165.59	1599.34	13.72	35.84	-18.65	38.38	69.05	3.16
1700.00	2.13	200.05	1699.26	9.80	35.64	-14.74	36.96	74.63	1.44
1800.00	1.50	208.32	1799.21	6.91	34.33	-11.70	35.02	78.62	.68
1900.00	1.29	203.19	1899.18	4.98	33.39	-9.66	33.76	81.51	.25
2000.00	2.52	201.23	1999.12	1.76	32.09	-6.28	32.14	86.87	1.24
2100.00	2.81	199.86	2099.01	-2.74	30.40	-1.59	30.53	95.15	.29
2200.00	2.32	196.18	2198.90	-7.07	28.93	2.91	29.78	103.74	.52
2300.00	1.99	213.52	2298.84	-10.38	27.97	6.32	29.84	110.37	.73
2400.00	3.53	240.42	2398.73	-13.14	24.22	9.58	27.56	118.47	1.98

RECEIVED

JUN 01 2007

CONFIDENTIAL

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
2500.00	5.13	239.76	2498.43	-16.83	17.54	14.18	24.31	133.82	1.59
2600.00	6.27	230.56	2597.91	-22.42	9.06	20.91	24.18	157.99	1.46
2700.00	2.57	193.42	2697.55	-28.72	3.95	27.88	28.99	172.18	4.49
2800.00	2.42	189.24	2797.46	-32.99	3.37	32.18	33.16	174.17	.24
2900.00	3.07	199.23	2897.36	-37.25	2.33	36.54	37.32	176.42	.81
3000.00	3.42	208.97	2997.19	-42.66	-.07	42.24	42.66	180.10	.65
3100.00	3.40	213.67	3097.01	-47.69	-3.22	47.67	47.80	183.87	.28
3200.00	3.57	214.03	3196.83	-52.70	-6.61	53.10	53.11	187.15	.17
3300.00	3.77	200.26	3296.62	-58.31	-9.60	59.08	59.09	189.35	.90
3400.00	4.18	210.34	3396.38	-64.58	-12.45	65.69	65.77	190.91	.81
3500.00	3.62	194.68	3496.15	-70.76	-15.17	72.19	72.37	192.10	1.19
3600.00	4.62	182.53	3595.89	-77.96	-16.14	79.46	79.62	191.70	1.32
3700.00	3.51	175.24	3695.64	-84.91	-16.01	86.32	86.41	190.68	1.22
3800.00	3.54	177.19	3795.45	-91.10	-15.53	92.38	92.42	189.67	.12
3900.00	3.35	185.80	3895.27	-97.01	-15.76	98.26	98.28	189.23	.55
4000.00	3.55	182.86	3995.09	-103.00	-16.34	104.28	104.29	189.01	.27
4100.00	3.76	173.90	4094.89	-109.36	-16.07	110.53	110.54	188.36	.61
4200.00	3.93	168.24	4194.66	-116.02	-15.07	116.98	116.99	187.40	.41
4300.00	3.91	162.25	4294.42	-122.68	-13.26	123.32	123.39	186.17	.41
4400.00	3.65	163.95	4394.20	-128.96	-11.16	129.24	129.44	184.95	.29
4500.00	3.75	164.08	4494.01	-135.05	-9.67	135.06	135.39	184.09	.11
4600.00	3.92	159.64	4593.77	-141.49	-7.44	141.12	141.69	183.01	.34
4700.00	4.01	164.02	4693.53	-148.02	-5.13	147.26	148.11	181.98	.31
4800.00	3.86	174.99	4793.29	-154.92	-3.96	153.93	154.98	181.47	.77
4900.00	3.12	176.82	4893.10	-161.00	-3.68	159.91	161.05	181.31	.74
5000.00	2.52	173.09	4992.98	-165.83	-3.17	164.61	165.86	181.09	.63
5100.00	2.35	173.04	5092.90	-169.94	-2.70	168.61	169.96	180.91	.17
5200.00	2.49	163.54	5192.81	-174.07	-1.97	172.60	174.08	180.65	.42
5300.00	2.90	157.99	5292.70	-178.39	-.29	176.64	178.39	180.09	.48
5400.00	2.50	166.96	5392.58	-183.11	1.37	181.08	183.12	179.57	.58
5500.00	1.90	184.61	5492.50	-186.84	1.67	184.72	186.84	179.49	.90
5600.00	1.87	198.23	5592.45	-189.96	.98	187.91	189.96	179.70	.45
5700.00	1.10	207.13	5692.41	-192.54	-.06	190.61	192.54	180.02	.80
5800.00	.90	203.29	5792.40	-193.96	-.80	192.12	193.96	180.24	.22
5900.00	1.44	207.35	5892.38	-195.75	-1.63	194.01	195.75	180.48	.55
6000.00	1.98	200.54	5992.34	-198.48	-2.84	196.88	198.50	180.82	.57
6100.00	1.82	201.16	6092.27	-201.94	-3.94	200.47	201.98	181.12	.15
6200.00	.97	258.82	6192.24	-203.79	-5.30	202.49	203.86	181.49	1.54
6300.00	1.63	275.14	6292.21	-203.47	-7.48	202.48	203.61	182.11	.75
6400.00	2.25	263.41	6392.15	-203.52	-10.91	203.01	203.81	183.07	.73
6500.00	2.52	245.92	6492.06	-204.53	-15.04	204.60	205.08	184.21	.77
6600.00	2.36	221.78	6591.97	-207.20	-18.36	207.71	208.01	185.06	1.03
6700.00	3.70	204.07	6691.85	-211.23	-20.87	212.06	212.26	185.64	1.62
6800.00	5.37	193.05	6791.52	-218.94	-23.44	220.06	220.20	186.11	1.87
6900.00	3.79	181.02	6891.18	-227.09	-24.02	228.20	228.36	186.04	1.84

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
7000.00	2.80	181.61	6991.02	-232.63	-24.22	233.72	233.89	185.94	.99
7100.00	2.27	168.79	7090.92	-237.18	-23.89	238.17	238.38	185.75	.77
7132.00	1.40	163.10	7122.90	-238.21	-23.68	239.16	239.38	185.68	2.78

SMH

CONFIDENTIAL

RBDB LLC.
Crazy R Ranch #1
Sec 12, SE/NE, T25S, R4W
Sevier County, UT

RECEIVED

JUN 01 2007

DIV. OF OIL, GAS & MINING

CONFIDENTIAL

GEOLOGIC REPORT

ON

**Crazy R Ranch #1
Sec 12, SE/NE, T25S, R4W
Sevier County, UT**

FOR

RBDR, LLC

TABLE OF CONTENTS

Well Data Summary.....	3
Formation Evaluation.....	4
Bit Record.....	5
Daily Drilling Summary.....	6
Deviation Surveys.....	7
Sample Descriptions.....	10

March 2007

**Decollement Consulting, Inc
Dennis Springer
Geologist**

Well Data Summary

Well Name	Crazy R Ranch #1
Operator	RBDR, LLC
Surface Location	SE/NE, Sec 12, T25S, R4W
API #	43-041-30046
Well Classification	Wildcat
Drilling Contractor	DHS #11
Elevation-Ground level Kelly Bushing	5101' 5123'
Spud Date	Feb 10, 2007
TD Date	Mar 1, 2007
Surface Casing	9 5/8" Sat @ 1230'
Hole Size	12 3/4", 8 3/4"
Sample Interval	150 - 7282
Gas Detection	150 - 7282
Open Hole Logs	NONE
Mud Type	Fresh Water Gel
Well Status	P & A

Formation Evaluation

RBDR, LLC Crazy R Ranch #1

RBDR, LLC drilled out from under conductor pipe on Feb 10 on Crazy R Ranch Well #1 with Bit #1. We spudded in Tertiary Volcanics consisting of reddish brown Rhyolite and a light gray to green bentonitic shale to ash. At 2296' we encountered light to medium grey shale, followed by Anhydrite and light grey to white chalky limestone, leading me to think we were in Arapien.

At 2764 we possibly crossed a thrust fault into arkosic sandstone consisting of reworked granite. After making a bit trip at 6478' for a totally wore out bit the samples changed to a light grey to white granite composed of very coarse grained angular quartz, biotite, and chlorite. Crazy R Ranch #1 TD in granite at 7182'. Presently plugging and abandoned.

**Bit Record
RBDR LLC
Crazy R Ranch #1**

BIT	SIZE	MAKE	TYPE	SERIAL#	JETS	OUT
1	12 ¾	REED	HP43A	B73500	3, 24	1230
2	8 ¾	STC	FH20	PF6974	3, 15	4627
3	8 ¾	STC	PF1632	FH123VPS	3, 18	6477
4	8 ¾	STC	FH28	PE3186	3, 18	7182

BIT	FT	HRS	TOT HRS	WT	RPM	PP	MUD WT	VIS	DEV
1	1122	27 ½	27 ½	5	20	1750	8.3	27	1.9
2	3397	119 ½	119 ½	10	35	1350	8.7	39	3.9
3	1850	114	114	30	35	1500	8.5	40	2.6
4	690	44	44	40	35	1650	8.6	67	3.4

RBDR LLC
Crazy R Ranch #1

<u>DATE</u>	<u>DEPTH</u>	<u>PROG</u>	<u>HRS</u>	<u>MUD</u>	<u>VIS</u>	<u>WL</u>	<u>PH</u>	<u>ACTIVITY</u>
2/9	103	17						
2/10	120	675	17					Drill Trip Replace MWD Drill
2/11	794	434	8.5	8.4	60			Drill work stack pipe
2/12	1230	0	0					Trip Fish retrieve fish
2/13	1230	0	0	8.4+	43	24	8	Trip repair rotary torque
2/14	1230	0	0					Rig up casing Cement
2/15	1230	732	17 ½	8.3+	40			Nipple up bop trip drill
2/16	1962	808	23 ½	8.4	43	24	8	DRLG
2/17	2770	679	23 ½	8.4	40	14	10	DRLG
2/18	3449	533	23 ½	8.8	35	34	10.5	DRLG
2/19	3982	470	23 ½	8.7	39	20	10.8	DRLG
2/20	4452	175	8	8.6	36	16	10.8	DRLG TRIP
2/21	4627	490	23 ½	8.6	36	16	10.8	DRLG
2/22	5117	409	23 ½	8.6	37	17.6	10.1	DRLG
2/23	5526	364	24	8.5	40	16.0	7.9	DRLG
2/24	5890	341	23 ½	8.4+	37	18.0	11.2	DRLG
2/25	6231	246	20	8.4+	40	18.0	10.2	DRLG Trip for bit
2/26	6477	128	9	8.6+	66	8.0	10	Trip ream DRLG
2/27	6605	390	23 ½	8.6+	67	10.0	11.5	DRLG
2/28	6995	187	13 ½	8.7	76	9	10	DRLG work on pumps, trip
3/1	7182							Trip out TD

RBDR LLC
Crazy R Ranch #1

DEPTH	INCLINATION	DIRECTION
275.00	1.10	37.40
367.00	1.80	55.10
399.00	1.50	30.30
492.00	1.70	29.10
586.00	2.40	36.50
682.00	1.20	57.10
776.00	1.60	71.80
871.00	1.40	94.70
966.00	1.30	94.30
1061.00	1.80	69.70
1157.00	1.90	76.80
1180.00	1.90	76.20
1310.00	1.90	76.20
1310.00	1.90	81.00
1405.00	2.20	83.10
1499.00	2.30	83.40
1594.00	2.60	163.80
1690.00	2.20	199.30
1785.00	1.60	208.80
1880.00	1.00	204.20
1976.00	2.40	201.60
2072.00	2.90	200.30
2167.00	2.60	198.70
2263.00	1.8	189.20
2359.00	2.80	238.50
2454.00	4.50	242.00
2549.00	5.80	237.90
2581.00	6.40	234.60
2613.00	6.20	227.70
2644.00	5.20	219.70
2708.00	2.30	185.20
2771.00	2.60	188.50
2835.00	2.20	190.30
2931.00	3.50	201.90
3026.00	3.40	211.70
3120.00	3.40	214.20
3215.00	3.60	214.00
3309.00	3.80	198.90
3405.00	4.20	210.90
3498.00	3.60	195.00

DEPTH	INCLINATION	DIRECTION
3594.00	4.70	182.90
3688.00	3.50	175.20
3783.00	3.60	175.50
3878.00	3.30	185.70
3972.00	3.50	186.10
4068.00	3.70	175.40
4163.00	3.90	171.10
4259.00	4.00	163.80
4354.00	3.80	160.10
4450.00	3.50	168.50
4545.00	4.00	160.60
4576.00	3.90	159.50
4672.00	4.00	160.10
4767.00	4.10	173.20
4863.00	3.40	179.10
4957.00	2.70	172.40
5053.00	2.30	174.10
5148.00	2.4	172.00
5243.00	2.60	157.10
5339.00	3.10	158.50
5434.00	2.20	173.60
5529.00	1.80	190.50
5624.00	1.90	200.70
5720.00	.90	210.70
5815.00	.90	201.90
5909.00	1.50	207.70
6004.00	2.00	200.30
6036.00	2.00	200.30
6132.00	1.60	205.80
6227.00	1.10	286.30
6322.00	1.80	273.10
6386.00	2.20	265.50
6479.00	2.60	253.40
6542.00	2.50	230.20
6638.00	2.30	215.80
6734.00	4.50	200.80
6797.00	5.40	193.80
6829.00	5.10	185.40
6861.00	4.60	179.80
6893.00	3.90	181.20
6925.00	3.40	180.30
6957.00	3.00	184.90

DEPTH	INCLINATION	DIRECTION
6989.00	2.90	181.00
7021.00	2.60	182.90
7053.00	2.70	175.20
7085.00	2.60	168.20
7117.00	1.90	169.70
7132.00	1.40	163.10

Crazy R Ranch #1
Sec 12, SE/NE, T25S, R4W
Sevier County, UT

140-170	CEMENT 40% RHYOLITE 60% Red yellow, mottled, firm.
170-200	RHYOLITE 100 % Red, yellow, orange, grey, hard.
200-230	SHALE 80% Light grey, light green, bulky, earthy, soft, calcareous. RHYOLITE 20% Red, yellow, orange, grey, hard.
230-260	SHALE 80% Light green, light grey, bulky, earthy, bentonitic, soft, calcareous. RHYOLITE 20% Red, yellow, orange, grey, hard.
260-290	SHALE 80% Light green, light grey, bulky, earthy, bentonitic, soft, calcareous. RHYOLITE 20% Red, yellow, orange, grey, hard.
290-320	SHALE 80% Light green, light grey, bulky, earthy, bentonitic, soft, calcareous. RHYOLITE 20% Red, yellow, orange, grey, hard.
320-350	SHALE 60% Light grey, light green, bulky, earthy, silty, sandy, bentonitic, soft, slightly calcareous. RHYOLITE 40% Red, pink, grey, yellow, hard.
350-380	SHALE 60% Light grey, light green, bulky, earthy, silty, sandy, bentonitic, soft, slightly calcareous. RHYOLITE 40% Red, pink, grey, yellow, hard.
380-410	SHALE 90% Light to medium grey, light green bulky, earthy, bentonitic, soft, calcareous. RHYOLITE 10% Red, pink, grey, yellow, hard.
410-440	SHALE 90% Light to medium grey, light green bulky, earthy, bentonitic, soft, calcareous. RHYOLITE 10% Red, pink, grey, yellow, hard.
440-470	SHALE 90% Light to medium grey, light green bulky, earthy, bentonitic, soft, calcareous. RHYOLITE 60% Red, orange, yellow, grey, firm.
470-500	SHALE 10% Light to medium grey, light green bulky, earthy, bentonitic, soft, calcareous. RHYOLITE 90% Red, orange, yellow, grey, firm.
500-530	RHYOLITE 100% Red, orange, yellow, grey, firm.
530-560	RHYOLITE 100% Brown, grey, red, yellow, purple, firm.
560-590	RHYOLITE 100% Brown, grey, red, yellow, purple, firm.

590-620 RHYOLITE 100% Light grey, white, brown, red, yellow, firm.

620-650 RHYOLITE 100% Light grey, white, brown, red, yellow, firm.

650-680 RHYOLITE 100% Light grey, white, brown, red, yellow, firm.

680-710 RHYOLITE 100% White, light brown, orange, red, firm.

710-740 RHYOLITE 100% White, light brown, orange, red, firm.

740-770 RHYOLITE 100% White, light brown, orange, red, firm.

770-800 RHYOLITE 100% White, light brown, orange, red, firm.

800-830 RHYOLITE 100% Light brown, light orange, white, grey, firm.

830-860 RHYOLITE 100% Light brown, light orange, white, grey, firm.

860-890 RHYOLITE 100% Light brown, light orange, white, grey, firm.

890-920 RHYOLITE 100% Light brown, light orange, white, grey, firm.

920-950 RHYOLITE 100% Light brown, light orange, white, grey, firm.

950-980 RHYOLITE 100% Light brown, light orange, white, grey, firm.

980-1010 RHYOLITE 100% Tan, light grey, white, pink, yellow, firm.

1010-1040 RHYOLITE 100% Tan, light grey, white, pink, yellow, firm

1040-1070 RHYOLITE 100% Tan, light grey, white, pink, yellow, firm

1070-1100 RHYOLITE 100% Tan, white, light grey, red, friable to firm.

1100-1130 RHYOLITE 100% Light grey, white, red brown, friable to firm.

1130-1160 RHYOLITE 100% Light grey, white, red brown, friable to firm.

1160-1190 RHYOLITE 100% Light grey, white, red brown, friable to firm.

1190-1220 RHYOLITE 100% Tan, light brown, pink, friable to firm.

1220-1230 RHYOLITE 100% Tan, light brown, pink, friable to firm.

1220-1250 RHYOLITE 90% Pink, light red brown, friable to firm.
CEMENT 10%

1250-1280 RHYOLITE 90% Pink, light red brown, friable to firm.
CEMENT 10%

1280-1310 RHYOLITE 100% Tan, pink.

1310-1340 RHYOLITE 100% Red brown, pink, yellow, grey, friable to firm.

1340-1370 RHYOLITE 100% White, tan, translucent.

1370-1400 RHYOLITE 100% Light yellow, light orange, translucent, quartz.

1400-1430 RHYOLITE 100% Light yellow, pink, white, translucent, quartz.

1430-1460 RHYOLITE 100% Red brown, pink, yellow, grey occasional clear quartz.

1460-1490 RHYOLITE 80% Various colored, red, brown, grey, purple.
SHALE 20% White, pink, red brown, soft, bentonitic, ash.

1490-1520 SHALE 100% White, light grey, bentonitic, free quartz grains, soft, gummy.

1520-1550 SHALE 60% White, light grey, bentonitic, free quartz grains, soft, gummy.
RHYOLITE 40% Various colored, red, brown, grey, purple.

1550-1580 SHALE 40% White, light grey, pink, soft, gummy.
RHYOLITE 60% various colored, red brown, grey, purple, friable.

1580-1610 SHALE 30% White, light grey, pink, soft, gummy.
RHYOLITE 70% various colored, red brown, grey, purple, friable.

1610-1640 RHYOLITE 100% Red brown, brown, brittle.

1640-1670 RHYOLITE 100% Dark grey, yellow brown, brittle.

1670-1700 RHYOLITE 100% Red brown, brittle.

1700-1730 SILTSTONE 30% Orange, red brown, soft.
RHYOLITE 70% Red brown, brittle.

1730-1760 RHYOLITE 100% Red brown, brittle.

1760-1790 RHYOLITE 100% Red brown, brittle.

1790-1820 SILTSTONE 20% Light orange, red brown, soft.
RHYOLITE 80% Red brown, 80% free quartz grains fine to coarse grained.

- 1820-1850 SHALE 20% Light orange, pink.
RHYOLITE 80% Pink, red brown, brittle, with 70% free quartz grains & mica.
- 1850-1880 RHYOLITE 100% Pink, red brown, brittle, 70% free quartz grains fine to coarse grained.
- 1880-1910 SHALE 40% White, light orange, soft, large mica flakes.
RHYOLITE 60% Pink, red brown, brittle, 70% abundant free quartz grains fine to coarse grained.
- 1910-1940 SHALE 60% White, pink, soft, ash, mica.
RHYOLITE 40% Pink, red brown, brittle, 70% abundant free quartz grains fine to coarse grained.
- 1940-1970 RHYOLITE 100% Pink, red brown, abundant quartz grains and mica.
- 1970-2000 RHYOLITE 100% Pink, red brown, yellow, abundant quartz grains and mica.
- 2000-2030 RHYOLITE 100% Pink, red brown, yellow, abundant quartz grains and mica.
- 2030-2060 SHALE 40% White, light grey, ash, mica, bentonitic.
RHYOLITE 60% Pink, red brown, yellow, abundant quartz grains and mica.
- 2060- 2090 RHYOLITE 100% Pink, orange, red brown grey, various colored, decreasing quartz and mica.
- 2090-2120 RHYOLITE 100% Pink, orange, red brown grey, various colored, decreasing quartz and mica.
- 2120-2150 SHALE 80% Pink, orange, white, mica, sandy, soft.
RHYOLITE 20% Pink, orange, red brown grey, various colored, decreasing quartz and mica.
- 2150-2180 SHALE 100% Pink, orange, white, mica, sandy, soft.
- 2180-2210 SHALE 100% Pink, white, orange, sandy, mica, soft.
- 2210-2240 SHALE 100% Pink, white, orange, sandy, mica, soft, with 50% free quartz grains, fine to coarse grained, angular.
- 2240-2270 SHALE 100% White, pink, orange, so light to medium grey, bulky, earthy, soft, calcareous, decreasing quartz.
- 2270-2300 SHALE 100% White, orange, pink, occasional light grey, bulky, sandy, mica, soft with 20% free quartz grains.
- 2300-2330 SHALE 100% Light to medium grey, white, orange, bulky, earthy, silty, calcareous, soft.
- 2330-2360 SHALE 100% Light to medium grey, white, pink, bulky, earthy, silty, calcareous, soft, so free coarse grained quartz.

- 2360-2390 SHALE 100% Light to medium grey, bulky, earthy, silty, soft to firm, calcareous.
- 2390-2420 SHALE 100% Light to medium grey, bulky, earthy, silty, soft to firm, calcareous, with traces of anhydrite.
- 2420-2450 SHALE 70% Light to medium grey, bulky, earthy, silty, soft to firm, calcareous, with traces of anhydrite.
ANHYDRITE 30% White, translucent, chalky, soft.
- 2450-2480 SHALE 90% Light to medium grey, bulky, earthy, silty, soft, calcareous to limy.
ANHYDRITE 10% White, translucent, chalky, soft.
- 2480-2510 SHALE 100% Light to medium grey, bulky, earthy, silty, soft, calcareous to limy, poor sample abundant free quartz.
- 2510-2540 SHALE 50% Light to medium grey, bulky, earthy, silty, soft, calcareous to limy, poor sample abundant free quartz.
ANHYDRITE 50% White, translucent, chalky to crystalline, soft to firm.
- 2540-2570 SHALE 70% Light to medium grey, bulky, earthy, silty, soft, calcareous to limy, poor sample abundant free quartz.
LIMESTONE 20% Light grey, white, chalky, argillaceous, soft.
ANHYDRITE 10% White, translucent, chalky to crystalline, soft to firm.
- 2570-2600 SHALE 80% Light to medium grey, bulky, earthy, silty, soft, calcareous.
LIMESTONE 20% Light grey, white, chalky, argillaceous, soft.
- 2600-2630 SHALE 80% Light to medium grey, bulky, earthy, silty, soft, calcareous.
ANHYDRITE 20% White, translucent, chalky to crystalline, soft, abundant Rhyolite cavings.
- 2630-2660 SHALE 90% Light to medium grey, bulky, earthy, silty, soft, calcareous.
ANHYDRITE 10% White, translucent, chalky to crystalline, soft, abundant Rhyolite cavings.
- 2660-2690 SHALE 90% Light to medium grey, bulky, earthy, silty, soft, calcareous.
ANHYDRITE 10% White, translucent, chalky to crystalline, soft, abundant Rhyolite cavings.
- 2690-2720 SHALE 80% Light to medium grey, bulky, earthy, silty, soft, calcareous.
ANHYDRITE 20% White, chalky, soft.
- 2720-2750 SHALE 80% Light to medium grey, bulky, earthy, silty, soft, calcareous.
ANHYDRITE 20% White, chalky, soft.
- 2750-2780 SHALE 80% Light to medium grey, bulky, earthy, silty, soft, calcareous.
ANHYDRITE 20% White, chalky, soft.

- 2780-2810 SHALE 40% Light to medium grey, bulky, earthy, silty, soft, calcareous.
SANDSTONE 60% Light grey green, very fine (lower) to medium (upper) grained, sub angular, medium sorted, well cement, siliceous cement, glauconite, mica, firm, tight, no show.
- 2810-2840 SHALE 30% Light to medium grey, bulky, earthy, silty, soft, calcareous.
SANDSTONE 70% Light grey green, very fine (lower) to medium (upper) grained, medium sorted, sub angular, well cement, siliceous cement glauconite, mica, firm, tight, no show.
- 2840-2870 SANDSTONE 100% Light grey green, very fine (lower) to medium (upper) grained, medium sorted, sub angular, well cement, siliceous cement glauconite, mica, firm, tight, no show.
- 2870-2900 SANDSTONE 100% Green, light grey, very fine (lower) to very fine (upper), sub angular, well sorted, well cement, slightly calcareous cement, glauconite, mica, firm, tight, no show.
- 2900-2930 SHALE 10% Light to medium grey, bulky, earthy, silty, soft, calcareous.
SANDSTONE 90% Green, light grey, very fine (lower) to very fine (upper), sub angular, well sorted, well cement, slightly calcareous cement, glauconite, mica, firm, tight, no show.
- 2930-2960 SHALE 40% Light to medium grey, bulky, earthy, silty, soft, calcareous.
SANDSTONE 60% Green, light grey, very fine (lower) to very fine (upper), sub angular, well sorted, well cement, slightly calcareous cement, glauconite, mica, firm, tight, no show.
- 2960-2990 SANDSTONE 100% White, clear, light green arkose, very fine (lower) to fine (lower) grained, sub angular, well sorted, well cement, siliceous cement, glauconite, mica, tight, firm, no show.
- 2990-3020 SHALE 20% Light to medium grey, bulky, earthy, silty, soft, calcareous.
SANDSTONE 80% White, clear, light green arkose, very fine (lower) to fine (lower) grained, sub angular, well sorted, well cement, siliceous cement, glauconite, mica, tight, firm, no show.
- 3020-3050 SHALE 10% Light to medium grey, bulky, earthy, silty, soft, calcareous.
SANDSTONE 90% White, light grey clear, very fine (lower) to fine (upper) grained, sub angular, well sorted, well cement, siliceous cement, glauconite, mica, tight, firm, no show.
- 3050-3080 SANDSTONE 100% White, light grey clear, very fine (lower) to fine (upper) grained, sub angular, well sorted, well cement, siliceous cement, glauconite, mica, tight, firm, no show.
- 3080-3110 SHALE 10% Light to medium grey, bulky, earthy, silty, soft, calcareous.
SANDSTONE 90% White, light grey clear, very fine (lower) to fine (upper) grained, sub angular, well sorted, well cement, siliceous cement, glauconite, mica, tight, firm, no show.
- 3110-3140 SHALE 10% Light to medium grey, bulky, earthy, silty, soft, calcareous.
SANDSTONE 90% Arkose, Light grey, clear, green, very fine (lower) to fine (lower) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, no show.

- 3140-3170 SANDSTONE 100% Arkose, Light grey, clear, green, very fine (lower) to fine (lower) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, no show.
- 3170-3200 SANDSTONE 100% Arkose, light grey, clear, very fine (lower) to fine (lower) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, tight, no show.
- 3200-3230 SANDSTONE 100% Arkose, light grey, clear, very fine (lower) to fine (lower) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, tight, no show.
- 3230-3250 SANDSTONE 100% Arkose, light grey, clear, very fine (lower) to fine (lower) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, tight, no show.
- 3250-3280 SANDSTONE 100% Arkose, light grey clear, very fine (lower) to fine (lower) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, tight, no show.
- 3280-3310 SANDSTONE 100% Arkose, light grey clear, very fine (lower) to fine (lower) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, tight, no show.
- 3310-3340 SANDSTONE 100% Arkose, light grey clear, very fine (lower) to fine (lower) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, tight, no show.
- 3340-3370 SANDSTONE 100% Light grey, clear, white, very fine (lower) to fine (upper) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, no show.
- 3370-3400 SANDSTONE 100% Light grey, clear, white, very fine (lower) to fine (upper) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, no show.
- 3400-3430 SANDSTONE 100% Light grey, clear, white, very fine (lower) to fine (upper) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, no show.
- 3430-3460 SANDSTONE 100% Light grey, clear, white, very fine (lower) to fine (upper) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, no show.
- 3460-3490 SANDSTONE 100% Arkose, white, light grey, clear, very fine (lower) to fine (lower) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, tight, no show.
- 3490-3520 SANDSTONE 100% Arkose, white, light grey, clear, very fine (lower) to fine (lower) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, tight, no show.
- 3520-3550 SANDSTONE 100% Arkose, white, light grey, clear, very fine (lower) to fine (lower) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, tight, no show.
- 3550-3580 SANDSTONE 100% Arkose, white, light grey, clear, very fine (lower) to fine (upper) grained sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, tight, no show.

- 3580-3610 SANDSTONE 100% Arkose, white, light grey, clear, very fine (lower) to fine (upper) grained sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, tight, no show.
- 3610-3640 SANDSTONE 100% Arkose, white, light grey, clear, very fine (lower) to fine (upper) grained sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, tight, no show.
- 3640-3670 SANDSTONE 100% Arkose, white, light grey, clear, very fine (lower) to fine (upper) grained sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, tight, no show.
- 3670-3700 SANDSTONE 100% Arkose, white, light grey, clear, very fine (lower) to fine (upper) grained sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, tight, no show.
- 3700-3730 SANDSTONE 100% Arkose, white, light grey, clear, very fine (lower) to fine (upper) grained sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, tight, no show.
- 3730-3760 SANDSTONE 100% Arkose, white, light grey, clear, very fine (lower) to fine (upper) grained sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, firm, tight, no show.
- 3760-3790 SANDSTONE 100% Arkose, white, light grey, clear, very fine (lower) to medium (lower) grained occasional coarse grained, sub angular to angular, medium sorted, well cement, siliceous cement, glauconite, mica, firm, tight, no show.
- 3790-3820 SANDSTONE 100% Arkose, white, light grey, clear, very fine (lower) to medium (lower) grained, sub angular to angular, medium to well sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 3820-3850 SANDSTONE 100% Arkose, white, light grey, clear, very fine (lower) to medium (lower) grained, sub angular to angular, medium to well sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 3850-3880 SANDSTONE 100% White, light grey, clear, very fine (lower) to medium (lower) grained, sub angular to angular, medium to well sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 3880-3910 SANDSTONE 100% White, light grey, clear, very fine (lower) to medium (lower) grained, sub angular to angular, medium to well sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 3910-3940 SANDSTONE 100% White, light grey clear, very fine (lower) to medium (lower) grained occasional coarse grained, angular to sub angular, medium sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 3940-3970 SANDSTONE 100% White, light grey clear, very fine (lower) to medium (lower) grained occasional coarse grained, angular to sub angular, medium sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.

- 3970-4000 SANDSTONE 100% White, light grey clear, very fine (lower) to medium (lower) grained occasional coarse grained, angular to sub angular, medium sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 4000-4030 SANDSTONE 100% Arkose, white, light grey clear, very fine (lower) to medium (lower) grained, angular to sub angular, medium sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 4030-4060 SANDSTONE 100% Arkose, white, light grey clear, very fine (lower) to medium (lower) grained, angular to sub angular, medium sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 4060-4090 SANDSTONE 100% Arkose, white, light grey clear, very fine (lower) to fine (upper) grained, angular to sub angular, medium sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 4090-4120 SANDSTONE 100% Arkose, white, light grey clear, very fine (lower) to medium (upper) grained, angular to sub angular, medium sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 4120-4150 SANDSTONE 100% Arkose, white, light grey clear, very fine (lower) to medium (upper) grained, angular to sub angular, medium sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 4150-4180 SANDSTONE 100% Arkose, white, light grey clear, very fine (lower) to medium (upper) grained, angular to sub angular, medium sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 4180-4210 SANDSTONE 100% Arkose, white, clear, light grey, very fine (lower) to fine (upper) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 4210-4240 SANDSTONE 100% Arkose, white, clear, light grey, very fine (lower) to fine (upper) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 4240-4270 SANDSTONE 100% Arkose, white, clear, light grey, very fine (lower) to fine (upper) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 4270-4300 SANDSTONE 100% Arkose, white, clear, light grey, very fine (lower) to fine (upper) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.

- 4300-4330 SANDSTONE 100% Arkose, white, clear, light grey, very fine (lower) to fine (upper) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 4330-4360 SANDSTONE 100% White, clear, light grey, very fine (lower) to fine (upper) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 4360-4390 SANDSTONE 100% White, clear, light grey, very fine (lower) to fine (upper) grained, sub angular to angular, well sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 4390-4420 SANDSTONE 100% Arkose, clear, white, light grey, very fine (lower) to fine (upper) grained occasional coarse grained quartz, angular to sub angular, medium sorted, well cement, siliceous cement, mica, glauconite, kaolin, tight, firm, no show.
- 4420-4450 SANDSTONE 100% Arkose, clear, white, light grey, very fine (lower) to fine (upper) grained occasional very coarse grained angular quartz, angular to sub angular, medium sorted, well cement, siliceous cement, mica, glauconite, kaolin, tight, firm, no show.
- 4450-4480 SANDSTONE 100% Arkose, clear, white, light grey, very fine (lower) to fine (upper) grained occasional very coarse grained angular quartz, angular to sub angular, medium sorted, well cement, siliceous cement, mica, glauconite, kaolin, tight, firm, no show.
- 4480-4510 SANDSTONE 100% Arkose, clear, white, light grey, very fine (lower) to fine (upper) grained occasional coarse to very coarse grained angular quartz, angular to sub angular, well sorted, well cement, siliceous cement, mica, glauconite, kaolin, tight, firm, no show.
- 4510-4540 SANDSTONE 100% Arkose, clear, white, light grey, very fine (lower) to fine (upper) grained occasional coarse to very coarse grained angular quartz, angular to sub angular, well sorted, well cement, siliceous cement, mica, glauconite, kaolin, tight, firm, no show.
- 4540-4570 SANDSTONE 100% Arkose, clear, white, light grey, very fine (lower) to fine (upper) grained occasional coarse to very coarse grained angular quartz, angular to sub angular, well sorted, well cement, siliceous cement, mica, glauconite, kaolin, tight, firm, no show.
- 4570-4600 SANDSTONE 100% Arkose, clear, white, light grey, very fine (lower) to fine (upper) grained occasional coarse to very coarse grained angular quartz, angular to sub angular, well sorted, well cement, siliceous cement, mica, glauconite, kaolin, tight, firm, no show.
- 4600-4630 SANDSTONE 100% Arkose, clear, light grey, white, arkose, very fine (lower) to fine (upper) grained, argillaceous to sub angular, well sorted, well cement, glauconite, mica, kaolin, firm, siliceous cement, tight, no show.
- 4630-4660 SANDSTONE 100% Arkose, clear, light grey, white, arkose, very fine (lower) to fine (upper) grained, argillaceous to sub angular, well sorted, well cement, glauconite, mica, kaolin, firm, siliceous cement, tight, no show.

- 4660-4690 SANDSTONE 100% Arkose, clear, white, light grey, very fine (lower) to medium (lower) grained, angular to sub angular, medium sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 4690-4720 SANDSTONE 100% Arkose, clear, white, light grey, very fine (lower) to medium (lower) grained, angular to sub angular, medium sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 4720-4750 SANDSTONE 100% Arkose, clear, white, light grey, orange, very fine (lower) to medium (lower) grained, angular to sub angular, medium sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 4750-4780 SANDSTONE 100% Arkose, clear, white, light grey, orange, very fine (lower) to medium (lower) grained, angular to sub angular, medium sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 4780-4810 SANDSTONE 100% Arkose, clear, white, light grey, orange, very fine (lower) to medium (lower) grained, angular to sub angular, medium sorted, well cement, siliceous cement, glauconite, mica, kaolin, firm, tight, no show.
- 4810-4840 SANDSTONE 100% Arkose, clear, white light grey, orange, very fine (lower) to fine (upper), angular to sub angular, well sorted, well cement, siliceous cement, mica, kaolin, firm, tight, no show.
- 4840-4870 SANDSTONE 100% Arkose, clear, white light grey, orange, very fine (lower) to medium (lower), angular to sub angular, well sorted, well cement, siliceous cement, mica, kaolin, firm, tight, no show.
- 4870-4900 SANDSTONE 100% Arkose, clear, white, light grey, orange, very fine (lower) to medium (lower) grained, angular to sub angular, well sorted, well cement, siliceous cement, mica, kaolin, firm, no show.
- 4900-4930 SHALE 10% Light grey, bulky, earthy, silty, soft, calcareous.
SANDSTONE 100% Arkose, clear, white, light grey, orange, very fine (lower) to medium (lower) grained, angular to sub angular, well sorted, well cement, siliceous cement, mica, kaolin, firm, no show.
- 4930-4960 SHALE 10% Light grey, light grey green, bulky, earthy, silty, soft calcareous.
SANDSTONE 90% Arkose, clear, white, light grey, orange, very fine (lower) to medium (lower) grained, angular to sub angular, well sorted, well cement, siliceous cement, mica, kaolin, firm, no show.
- 4960-4990 SANDSTONE 100% Arkose, clear, white, light grey, very fine (lower) to medium (lower) grained occasional very coarse grained, angular to sub angular, well cement, medium sorted, siliceous cement, mica, kaolin, friable to firm, tight, no show.

- 4990-5020 SANDSTONE 100% Arkose, clear, white, light grey, very fine (lower) to medium (lower) grained occasional very coarse grained, angular to sub angular, well cement, medium sorted, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 5020-5050 SANDSTONE 100% Arkose, clear, white, light grey, very fine (lower) to medium (lower) grained occasional very coarse grained, angular to sub angular, well cement, medium sorted, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 5050-5080 SANDSTONE 100% Arkose, clear, white, light grey, very fine (lower) to medium (lower) grained occasional very coarse grained, angular to sub angular, well cement, medium sorted, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 5080-5110 SANDSTONE 100% Arkose, clear, white, light grey, very fine (lower) to medium (lower) grained occasional very coarse grained, angular to sub angular, medium sorted, well cement, siliceous cement, mica, kaolin friable to firm, tight no show.
- 5110-5140 SANDSTONE 100% Arkose, clear, white, light grey, orange, very fine (lower) to medium (lower) grained occasional very coarse grained, angular to sub angular, medium sorted, well cement, siliceous cement, mica, kaolin friable to firm, tight no show.
- 5140-5170 SANDSTONE 100% Arkose, clear, white, light grey, orange, very fine (lower) to medium (lower) grained occasional very coarse grained, angular to sub angular, medium sorted, well cement, siliceous cement, mica, kaolin friable to firm, tight no show.
- 5170-5200 SANDSTONE 100% Arkose, clear, white, light grey, orange, very fine (lower) to medium (lower) grained occasional very coarse grained, angular to sub angular, medium sorted, well cement, siliceous cement, mica, kaolin friable to firm, tight no show.
- 5200-5230 SANDSTONE 100% Arkose, clear, white, light grey, orange, very fine (lower) to medium (upper) grained, sub angular to angular, medium sorted, well cement, siliceous, cement, mica, kaolin, firm, tight, no show.
- 5230-5260 SANDSTONE 100% Arkose, clear, white, light grey, orange, very fine (lower) to medium (upper) grained, sub angular to angular, medium sorted, well cement, siliceous, cement, mica, kaolin, firm, tight, no show.
- 5260-5290 SANDSTONE 100% Arkose, clear, white, light grey, very fine (lower) to medium (lower) grained, angular to sub angular, well sorted, well cement, siliceous cement, mica, kaolin, firm, tight, no show.
- 5290-5320 SANDSTONE 90% Arkose, clear, white, light grey, orange, very fine (lower) to medium (lower) grained, angular to sub angular, well sorted, well cement, siliceous cement, mica, kaolin, firm, tight, no show.
SHALE 10% Light grey, light grey green, bulky, earthy, silty, soft calcareous.

- 5320-5350 SANDSTONE 90% Arkose, clear, white, light grey, orange, very fine (lower) to medium (lower) grained, angular to sub angular, well sorted, well cement, siliceous cement, mica, kaolin, firm, tight, no show.
SHALE 10% Light grey, light grey green, bulky, earthy, silty, soft calcareous.
- 5350-5380 SHALE 10% Orange, red, bulky, earthy, silty, soft.
SANDSTONE 90% Arkose, white, clear, light grey, very fine (lower) to medium (lower) grained, angular to sub angular, well sorted, well cement, siliceous cement, mica, kaolin, tight, no show.
- 5380-5410 SHALE 10% Orange, red, bulky, earthy, silty, soft.
SANDSTONE 90% Arkose, white, clear, light grey, very fine (lower) to medium (lower) grained, angular to sub angular, well sorted, well cement, siliceous cement, mica, kaolin, tight, no show.
- 5410-5440 SHALE 10% Orange, red, bulky, earthy, silty, soft.
SANDSTONE 90% Arkose, white, clear, light grey, very fine (lower) to medium (lower) grained, angular to sub angular, well sorted, well cement, siliceous cement, mica, kaolin, tight, no show.
- 5440-5470 SHALE 10% Orange, red, red brown, blocky, earthy, silty, soft, non calcareous.
SANDSTONE 90% Arkose, white, clear, light grey, very fine (lower) to medium (lower) grained, angular to sub angular, well sorted, well cement, siliceous cement, mica, kaolin, tight, no show.
- 5470-5500 SHALE 20% Orange, red, red brown, blocky, earthy, silty, soft, non calcareous.
SANDSTONE 80% Arkose, white, clear, light grey, very fine (lower) to medium (lower) grained, sub angular to angular, well sorted, medium cement, siliceous cement, mica, kaolin, friable to firm, no show.
- 5500-5530 SHALE 30% Red brown, orange, bulky, earthy, silty, soft, non calcareous.
SANDSTONE 70% Arkose, white, clear, light grey, very fine (lower) to medium (lower) grained, sub angular to angular, well sorted, medium cement, siliceous cement, mica, kaolin, friable to firm, no show.
- 5530-5560 SHALE 10% Red brown, orange grey, bulky, earthy, silty, soft.
SANDSTONE 70% Arkose, white, clear, light grey, very fine (lower) to medium (lower) grained, sub angular to angular, well sorted, medium cement, siliceous cement, mica, kaolin, friable to firm, no show.
- 5560-5575 SHALE 30% Red brown, orange grey, white, mottled, bulky, earthy, silty, soft, calcareous.
SANDSTONE 70% Arkose, white, clear, light grey, very fine (lower) to medium (lower) grained, sub angular to angular, well sorted, medium cement, siliceous cement, mica, kaolin, friable to firm, no show.
- 5575-5590 SHALE 20% Red brown, orange grey, white, mottled, bulky, earthy, silty, soft, calcareous.
SANDSTONE 80% Arkose, white, clear, light grey, very fine (lower) to medium (lower) grained, sub angular to angular, well sorted, medium cement, siliceous cement, mica, kaolin, friable to firm, no show.
- 5590-5620 SHALE 20% Orange, red brown, grey, bulky, earthy, silty, soft.
SANDSTONE 80% Arkose, white clear, light grey, very fine (lower) to fine (upper) grained, sub angular to angular, well sorted, medium to well cement, siliceous cement, mica, kaolin, friable to firm, tight, no show.

- 5620-5650 SHALE 40% Orange, red brown, grey, bulky, earthy, silty, soft.
SANDSTONE 60% Arkose, white clear, light grey, very fine (lower) to fine (upper) grained, sub angular to angular, well sorted, medium to well cement, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 5650-5680 SHALE 30% Orange, red brown, white grey, bulky, earthy, silty.
SANDSTONE 70% Arkose, white clear, light grey, very fine (lower) to fine (upper) grained, sub angular to angular, well sorted, medium to well cement, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 5680-5710 SHALE 30% Orange, red brown, grey, bulky, earthy, silty, soft.
SANDSTONE 70% Arkose, white, clear, light grey, very fine (lower) to fine (upper) grained, sub angular to angular, well sorted, medium cement, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 5710-5740 SHALE 20% Orange, red, brown, grey, black, earthy, silty, soft.
SANDSTONE 80% Arkose, white, clear, light grey, very fine (lower) to fine (upper) grained occasional very coarse grained, angular quartz, sub angular to angular, well sorted, medium cement, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 5740-5770 SHALE 30% Orange, red, brown, grey, black, earthy, silty, soft.
SANDSTONE 70% Arkose, white, clear, light grey, very fine (lower) to fine (upper) grained occasional very coarse grained, angular quartz, sub angular to angular, well sorted, medium cement, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 5770-5800 SHALE 20% Orange, red, brown, grey, black, earthy, silty, soft.
SANDSTONE 80% Arkose, white, clear, light grey, very fine (lower) to medium (lower) grained, sub angular to angular, well sorted, medium cement, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 5800-5830 SHALE 20% Orange, red, brown, grey, black, earthy, silty, soft.
SANDSTONE 80% Arkose, white, clear, light grey, very fine (lower) to medium (lower) grained, sub angular to angular, well sorted, medium cement, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 5830-5860 SHALE 60% Orange, red brown, grey, bulky, earthy, silty, mica, soft, non calcareous.
SANDSTONE 40% Arkose, white, clear, light grey, very fine (lower) to medium (lower) grained, sub angular to angular, well sorted, medium cement, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 5860-5890 SHALE 20% Orange, red brown, grey, bulky, earthy, silty, mica, soft, non calcareous.
SANDSTONE 80% Arkose, white, light grey, clear, very fine (lower) to fine (upper) grained, sub angular to angular, well sorted, medium cement, siliceous cement, mica, kaolin, friable to firm, tight, no show.

- 5890-5920 SHALE 60% Orange, red brown, grey, purple, bulky, earthy, silty, mica, soft, non calcareous.
SANDSTONE 40% Arkose, white, light grey, clear, very fine (lower) to fine (upper) grained, sub angular to angular, well sorted, medium cement, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 5920-5950 SHALE 50% Orange, red brown, white, grey, bulky, earthy, silty, mica, soft, non calcareous.
SANDSTONE 50% Arkose, white, light grey, clear, very fine (lower) to fine (upper) grained, sub angular to angular, well sorted, medium cement, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 5950-5980 SHALE 30% Orange, red brown, white, grey, bulky, earthy, silty, mica, soft, non calcareous.
SANDSTONE 70% White, light grey, clear, very fine (lower) to medium (lower) grained, sub angular to angular, well sorted, medium cement, mica, kaolin, friable to firm, tight, no show.
- 5980-6010 SHALE 30% Orange, red brown, white, grey, bulky, earthy, silty, mica, soft, non calcareous.
SANDSTONE 70% White, light grey, clear, very fine (lower) to medium (lower) grained, sub angular to angular, well sorted, medium cement, mica, kaolin, friable to firm, tight, no show.
- 6010-6040 SHALE 20% Orange, brown, white, light grey, bulky, earthy, silty, mica, soft, non calcareous.
SANDSTONE 80% White, light grey, clear, very fine (lower) to medium (lower) grained, sub angular to angular, well sorted, medium cement, mica, kaolin, friable to firm, tight, no show.
- 6040-6070 SHALE 20% Orange, brown, white, light grey, bulky, earthy, silty, mica, soft, non calcareous.
SANDSTONE 80% Arkose, white, light grey, clear, very fine (lower) to medium (lower) occasional very grained, angular to sub angular, medium well cement, medium sorted, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 6070-6100 SHALE 30% Orange, red brown, purple, bulky, earthy, silty, soft, non calcareous.
SANDSTONE 70% Arkose, white, light grey, clear, very fine (lower) to medium (lower) occasional very grained, angular to sub angular, medium well cement, medium sorted, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 6100-6130 SHALE 20% Orange, red brown, purple, bulky, earthy, silty, soft, non calcareous.
SANDSTONE 80% Arkose, white, light grey, clear, very fine (lower) to medium (lower) occasional very grained, angular to sub angular, medium well cement, medium sorted, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 6130-6160 SHALE 20% Orange, red brown, purple, bulky, earthy, silty, soft, non calcareous.
SANDSTONE 90% Arkose, white light grey, clear, very fine (lower) to medium (upper) occasional very coarse grained, angular to sub angular, medium sorted, medium cement, siliceous cement, mica, glauconite, kaolin, friable to firm, tight, no show.

- 6160-6190 SHALE 20% Orange, red brown, purple, light grey, white, mottled, bulky, earthy, silty, soft, non calcareous.
SANDSTONE 80% Arkose, white light grey, clear, very fine (lower) to medium (upper) occasional very coarse grained, angular to sub angular, medium sorted, medium cement, siliceous cement, mica, glauconite, kaolin, friable to firm, tight, no show.
- 6190-6220 SHALE 10% Orange, red brown, purple, light grey, white, mottled, bulky, earthy, silty, soft, non calcareous.
SANDSTONE 90% Arkose, white, clear, light grey, very fine (lower) to fine (upper) grained, angular to sub angular, well sorted, medium cement, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 6220-6250 SHALE 10% Orange, red brown, purple, light grey, white, mottled, bulky, earthy, silty, soft, non calcareous.
SANDSTONE 90% Arkose, white, clear, light grey, very fine (lower) to medium (lower) grained occasional coarse grained, angular to sub angular, well sorted, medium cement, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 6250-6280 SHALE 10% Orange, red brown, purple, light grey, white, mottled, bulky, earthy, silty, soft, non calcareous.
SANDSTONE 90% Arkose, white, light grey, clear, very fine (lower) to medium (upper) grained, angular to sub angular, medium sorted, medium to well cement, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 6280-6310 SHALE 20% Orange, red brown, purple, light grey, white, mottled, bulky, earthy, silty, soft, non calcareous.
SANDSTONE 80% Arkose, white, light grey, clear, very fine (lower) to medium (upper) grained, angular to sub angular, medium sorted, medium to well cement, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 6310-6340 SHALE 30% Orange red brown, white, grey, possible cavings, ran sweep.
SANDSTONE 70% Arkose, white, light grey, clear, very fine (lower) to medium (upper) grained, angular to sub angular, medium sorted, medium to well cement, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 6340-6370 SHALE 10% Orange red brown, white, grey, possible cavings, ran sweep.
SANDSTONE 90% White, clear, light grey, very fine (lower) to medium (upper) occasional very coarse grained, angular to sub angular, medium srt, medium cement, siliceous cement, mica, kaolin, friable to firm, tight, no show.
- 6370-6400 SHALE 20% Orange red brown, white, grey, possible cavings, ran sweep.
SANDSTONE 80% White, clear, light grey, very fine (lower) to medium (upper) occasional very coarse grained, angular to sub angular, medium srt, medium cement, siliceous cement, mica, kaolin, friable to firm, tight, no show.

- 6400-6430 SANDSTONE 100% Arkose, white clear, light grey, very fine (lower) to medium (lower) grained, angular to sub angular, medium sorted, medium cement, siliceous cement, mica, kaolin, tight, firm, no show.
- 6430-6460 SHALE 10% Orange red brown, white, grey, possible cavings, ran sweep.
SANDSTONE 90% Arkose, white clear, light grey, very fine (lower) to medium (lower) grained, angular to sub angular, medium sorted, medium cement, siliceous cement, mica, kaolin, tight, firm, no show.
- 6460-6477 SHALE 10% Orange red brown, white, grey, possible cavings, ran sweep.
SANDSTONE 90% Arkose, white clear, light grey, very fine (lower) to medium (upper) grained, angular to sub angular, medium sorted, medium cement, siliceous cement, mica, kaolin, tight, firm, no show.
- 6477-6490 SHALE 30% Abundant cavings after trip.
SANDSTONE 70% Arkose, white clear, light grey, very fine (lower) to medium (upper) grained, angular to sub angular, medium sorted, medium cement, siliceous cement, mica, kaolin, tight, firm, no show.
- 6490-6520 SHALE 20% Cavings.
GRANITE 80% White, clear, light grey, very coarse grained, quartz, biotite.
- 6520-6550 GRANITE 100% White, clear, light grey, very coarse grained, quartz, biotite.
- 6550-6580 GRANITE 100% White, clear, light grey, fine to coarse grained, angular, quartz, biotite, firm.
- 6580-6610 GRANITE 100% White, clear, light grey, fine to coarse grained, angular, quartz, biotite, firm.
- 6610-6640 GRANITE 100% White, light grey, clear, very fine (lower) to very coarse grained (upper) angular to sub angular, biotite, firm.
- 6640-6670 GRANITE 100% White, light grey, clear, very fine (lower) to very coarse grained (upper) angular to sub angular, biotite, firm.
- 6670-6700 GRANITE 100% White, light grey, clear, very fine (lower) to very coarse grained (upper) angular to sub angular, biotite, firm.
- 6700-6730 GRANITE 100% White, light grey, coarse grained, argillaceous, quartz, biotite, firm.
- 6730-6760 GRANITE 100% White, light grey, clear, medium to very coarse grained, argillaceous quartz, biotite, chlorite, firm.
- 6760-6790 GRANITE 100% White, light grey, clear, medium to very coarse grained, argillaceous quartz, biotite, chlorite, firm.

- 6790-6820 GRANITE 100% White, light grey, clear, medium to very coarse grained, argillaceous quartz, biotite, chlorite, firm.
- 6820-6850 GRANITE 100% White, light grey, clear, medium to very coarse grained, argillaceous, quartz, biotite, kaolin, firm.
- 6850-6880 GRANITE 100% White, light grey, clear, medium to very coarse grained, argillaceous, quartz, biotite, kaolin, firm.
- 6880-6910 GRANITE 100% White, light grey, clear, medium to very coarse grained, argillaceous, quartz, biotite, kaolin, firm.
- 6910-6940 GRANITE 100% White, light grey, clear, medium to very coarse grained, argillaceous, quartz, biotite, kaolin, firm.
- 6940-6970 GRANITE 100% White, light grey, clear, fine to very coarse grained, argillaceous, quartz, biotite, kaolin, firm.
- 6970-7000 GRANITE 100% White, light grey, clear, fine to very coarse grained, argillaceous, quartz, biotite, kaolin, firm.
- 7000-7030 GRANITE 100% White, light grey, clear, fine to very coarse grained, argillaceous, quartz, biotite, kaolin, firm.
- 7030-7060 GRANITE 100% White, light grey, clear, fine to very coarse grained, argillaceous, quartz, biotite, chlorite, kaolin, firm.
- 7060-7090 GRANITE 100% White, light grey, clear, fine to very coarse grained, argillaceous, quartz, biotite, chlorite, kaolin, firm.
- 7090-7120 GRANITE 100% White, light grey, clear, fine to very coarse grained, argillaceous, quartz, biotite, chlorite, kaolin, firm.
- 7120-7150 GRANITE 100% White, light grey, clear, fine to very coarse grained, argillaceous, quartz, biotite, chlorite, kaolin, firm.
- 7150-7182 GRANITE 100% White, light grey, clear, fine to very coarse grained, argillaceous, quartz, biotite, chlorite, kaolin, firm.

43-041-30046 (PA)
252 4W Sec 12

MICHAEL R. LABRUM, P.C.

Richfield Office
180 North 100 East, Suite E
P.O. Box 217
Richfield, Utah 84701
(435) 896-1800
(435) 896-9570 Fax
Email: mrlabrum@xmission.com

Attorney at Law
A Professional Corporation

St. George
(435) 673-7117
Salt Lake
(801) 908-7500
Mobile
(435) 896-3800



September 5, 2007

Mr. Brad Hill
The Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
SLC, UT 84114-5801

RE: Crazy R #1 Well, Sevier County, Utah

Dear Mr. Hill:

Please be advised that I am the representative/owner of the property upon which the foregoing oil and gas exploratory well was drilled. The developer, RBDR Development, LLC, has terminated the drilling process and elected to cap the well as a dry hole. They have subsequently entered into an agreement with the Crazy R Ranches, Inc., MRL Enterprises, LLC, and Michael R. Labrum, Individually, to terminate the lease agreement on the property. Pursuant to our agreement as landowners, we have elected to settle with the development company on a damage figure and assume the responsibility for restoring the premises to its original condition.

It is my understanding that the drill hole itself has been properly plugged and inspected by the Division previously. The only remaining obligation of the developer is to restore the pit and contents and surface to its original condition. As landowners, we have agreed to accept the responsibility of restoring the pits, disposing of the drill mud in the pits, properly disposing of the polyurethane liners and leveling and reseedling the well site.

As a result of this agreement, the landowners will be solely responsible for the clean-up of the pits and restoring the surface to its original condition.

We are, therefore, requesting that the developer's bond be released immediately after inspection by your office to confirm the facts set forth in this letter. Your prompt attention and accommodation in this matter is greatly appreciated.

Thanking you in advance for your assistance and supervision on this project.

Very truly yours,

Michael R. Labrum, Individually, and as agent for
Crazy R Ranches, Inc. and MRL Enterprises, LLC

RECEIVED
SEP 07 2007

DIV. OF OIL, GAS & MINING