Self

COMPLETED Need Fee's PAID

Requested fees + mailed the permit

Permit # 1203

BEAVERHEAD COUNTY
ON-SITE WASTEWATER TREATMENT SYSTEM PERMIT

BEAVERHEAD COUNTY ENVIRONMENTAL HEALTH DEPARTMENT
2 SOUTH PACIFIC ST.
DILLON, MT 59725 PHONE- (406)-683-4868

PERMIT NO. 1203-04A

****

Permission is hereby granted to install an onsite wastewater treatment on the property owned by:

RUBE VALLEY RANCH - TED SCHMIDT
(PROPERTY OWNER)

and located at: 4000 LIMA DAM ROAD (MODUCAR)
(PHYSICAL ADDRESS OF SYSTEM)

Legal Description: NW 1/4, SW 1/4, Section 31, Township 13 S, Range 7W, of Beaverhead County P.M.M.

****

This system shall be installed in accordance with current Department rules governing the on-site treatment of wastewater, and the minimum construction requirements and special requirements provided for in this permit. This permit is issued, based on the information provided in the permit application. If any of this information is found incorrect, or if the system is not installed as provided for, this permit shall be rendered null and void. This permit is valid for one year from date issued.

****

PERMIT ISSUED BY: RS DATE 2-25-04

TYPE AND SIZE OF SYSTEM: MIN. 1000 GALLON PRE CAST CONCRETE SEPTIC TANK, D BOX, EFFLUENT FILTER, 180 LINEAL FEET OF "24 RATED" INFILTRATION CHAMBERS IN 2 OR MORE EQUAL LATERALS. MAY USE 135 LINEAL FEET OF "36 RATED" INFILTRATION CHAMBERS IN 2 OR MORE EQUAL LATERALS.

SEE ATTACHMENTS & AT GRADE SYSTEM REQUIRED.

(see attachments for details)

****

Installer: _____ Phone _____

****

INSPECTION: Requirements:

1. A final inspection by the **County Sanitarian or qualified engineer** recorded on the inspection closure form **or,**
2. Written verification on the **inspection closure form, photographic documentation and final drawing** (as installed) will be filed in the county sanitation files.

The applicant or installer shall notify the sanitarian's office or his designee (683-4868) not less than (8) working hours prior to covering the system. If the inspection cannot be made within (24) working hours of notification the system may be covered up with out final inspection by the sanitarian, **(SEE #2 above)**

Permit # 1203

APPLICATION FOR ON-SITE WASTE WATER TREATMENT PERMIT

CONVENTIONAL SINGLE FAMILY-- FEE $75.00

(No charge for replacement systems)

Beaverhead County Environmental Health Department — 2 South Pacific St #12

406-683-3770 — Dillon, MT 59725-279[illegible]

==========

(Construction or modification of a septic system shall not take place until a permit is issued)

PART 1. TO BE COMPLETED BY APPLICANT

1. Applicant's Name: RIVER VALLEY RANCH, LP

2. Applicant's Mailing Address: PO BOX 10175

Town: BOZEMAN State: MT Zip: 59719 Phone: 388-6992 276-3548 012

3. Address of /location of septic system: 4000 LIMA DAM ROAD, LIMA, MT

Legal Description: NW¼ SW¼, Sect. 31 T 13S R 7W

4. Name of Subdivision _____ Lot Number _____ *(if applicable)*

5. Property Size: 3,000 acres. Year survey was filed _____.

6. Was survey filed between 1961 and 1973? _____ (State review required for sanitary restrictions)

7. Installer's Name: ~~UNKNOWN~~ _____ Installer's Phone: _____

8. Type of System to be installed: X New _____ Replacement

_____ Tank Only _____ Drainfield X Both

If replacement, year failing system installed _____.

9. Treatment system to serve: _____ Single family dwelling X Mobile/Modular home ON FOUNDATION

Number of bedrooms: 3 Type of water supply: WELL

10. Distance to nearest river, stream, drainage, and irrigation ditch: 200'

Is this parcel in a floodplain? FLOW CONTROLLED BY DAM

11. Do you have reason to believe that the water table is high *(within 7 feet of ground surface during the highest period of the year)* YES

60 If flood prone 180

Permit # 1203

12. Directions for locating this property. 4 MILES EAST OF LIMA ON LIMA DAM ROAD.

13. Check List: For lots that do not have a **certificate of sanitary approval from DEQ or lots larger than 20 acres.**

Perc tests results X (2 minimum)_____(attach)
Test Pit results_____(attach) or call NRCS (SCS) Soils Survey(406) 683-3807
Well logs_____(3 or more)_____(attach) or call Mt. Tech. (406) 496-4336
Well background Nitrate-Nitrite results X (attach) Water sample

14. **On back page, sketch** the proposed septic system with lot boundaries. Include the following: *all buildings, wells, waterways, drainage-ways, bedrock out-croppings, areas of high groundwater or ponding, driveways and roadways.*

A. SHOW DIRECTION AND DEGREE OR PERCENTAGE OF SLOPE IN DRAINFIELD AREA.
B. LABEL DISTANCES OF THE SEPTIC SYSTEM FROM WELLS, WATERWAYS, HOUSES, and PROPERTY LINES.
C. SHOW WHERE A 100% REPLACEMENT DRAINFIELD CAN BE LOCATED FOR FUTURE USE.

15. The above information is true to the best of my knowledge and I understand that if any of this application is found untrue, my application and permit will not be valid. I further understand that inspection and approval of the above septic system does not constitute assumptions by the County environmental health department or its employees of liability for the system failure. The property owner, shall be responsible for the proper maintenance of the system and for abatement of any nuisance arising from its failure.

SIGNATURE OF APPLICANT R Schmidt III Date: 2/24/04
FOR RUBY VALLEY RANCH, LP

Permit # 1203

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
PERCOLATION TEST FORM

Owner Name RIVER VALLEY RANCH, LLP

Project Name _____

Lot of Tract Number _____ Test Number _____

Diameter of Test Hole 6" Depth of Test Hole 25"

Date and Time Soak Period Began 1400 HRS Ended 1555 HRS

Date Test Began 2/17/04

Distance of the reference point above the bottom of the hole 13"

Test Results

Start Time of Day	End Time of Day	Time Interval (Minutes)	Initial Distance Below Reference Point	Final Distance Below Reference Point	Drop in Water Level (inches)	Percolation Rate (minutes/inch)
1400 HRS	1450 HRS	50	~~0~~	13"	13"	> 3 MIN / INCH
1500 HRS	1555 HRS	55	~~0~~	13"	13"	> 3 MIN / INCH

4.2

I certify that this percolation test was done in accordance with DEQ-4, Appendix A.

TED SCHMIDT — Name (printed)

T Schmidt III — Signature

2/17/04 — Date

RIVER VALLEY RANCH
Company

ANALYTICAL REPORT

Montana Environmental Laboratory LLC

Permit # 1203

Prepared for:

River Valley Ranch LP
P. O. Box 10175
Bozeman, MT 59719

ORDER#: G0401180

Location: 4600 Lima Dam Rd
PWS ID:
Lab ID: 0401180-01

Matrix: DRINKING WATER

Date Collected: 02/17/2004
Date Received: 02/18/2004

Test Parameters

Parameter	Result	Units	MDL	MCL	Method	Date Analyzed	Analyst
Conductivity	540	umhos	.1		2510 B	02/20/2004	JWH
Nitrate + Nitrite, Total	1.06	mg/L	0.01	10	353.2	02/20/2004	JWH

MCL = Maximum Contaminant Limit
MDL = Minimum Detection Limit
ND = Not Detected
NR = Not Regulated

MEL REVIEW: Jan

Permit # 1203

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

PHOSPHOROUS BREAKTHROUGH ANALYSIS

SITE NAME: River Valley Ranch LP Schmidt
COUNTY:
LOT #:
NOTES:

VARIABLES	DESCRIPTION	VALUE	UNITS
Lg	Length of Primary Drainfield as Measured Perpendicular to Ground Water Flow	24.0	ft
L	Length of Primary Drainfield's Long Axis	100.0	ft
W	Width of Primary Drainfield's Short Axis	24.0	ft
B	Depth to Limiting Layer from Bottom of Drainfield Laterals*	7.0	ft
D	Distance from Drainfield to Surface Water	150.0	ft
T	Phosphorous Mixing Depth in Ground Water (0.5 ft for coarse soils, 1.0 ft for fine soils)**	0.5	ft
Ne			
Sw	Soil Weight (usually constant)	100.0	lb/ft3
Pa	Phosphorous Adsorption Capacity of Soil (usually constant)	200.0	ppm
#l	Number of Single Family Homes on the Drainfield	1.0	
CONSTANTS			
Pl	Phosphorous Load per Single Family Home (constant)	6.44	lbs/yr
X	Conversion Factor for ppm to percentage (constant)	1.0E+06	
EQUATIONS			
Pt	Total Phosphorous Load = (Pl)(#l)	6.44	lbs/yr
W1	Soil Weight under Drainfield = (L)(W)(B)(Sw)	1680000.0	lbs
W2	Soil Weight from Drainfield to Surface Water = [(Lg)(D) + (0.0875)(D)(D)] (T)(Sw)	278437.5	lbs
P	Total Phosphorous Adsorption by Soils = (W1 + W2)[(Pa)/(X)]	391.7	lbs
SOLUTION			
BT	**Breakthrough Time to Surface Water = P / Pt**	60.8	years

BY:
DATE: February 25, 2004

NOTES:

** Depth to limiting layer is typically based on depth to water in a test pit or bottom of a dry test pit minus two feet to account for burial depth of standard drainfield laterals.*
*** Material type is usually based on test pit. A soil that contains more than 35% silt and clay sized particles is considered fine grained.*

Permit # 1203

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

NITRATE SENSITIVITY ANALYSIS

Model Updated 01/24/96

SITE NAME: River Valley Ranch LP
COUNTY: Beaverhead
LOT #:
NOTES:

VARIABLES	DESCRIPTION	VALUE	UNITS
K	Hydraulic Conductivity	201.0	ft/day
I	Hydraulic Gradient	0.001	ft/ft
D	Depth of Aquifer (usually constant)	16.4	ft
L	Mixing Zone Length (see ARM 17.30.517(1)(d)(viii)	500	ft
Y	Width of Drainfield Perpendicular to Ground Water Flow	70	ft
Ng	Background Nitrate (as Nitrogen)	1.10	mg/L
Nr	Nitrate (as Nitrogen) in Precipitation (usually constant)	1.1	mg/L
Ne	Nitrates in Effluent (50 for conventional; 24 for level II)	50	mg/L
#I	Number of Single Family Homes on the Drainfield	1.0	
QI	Quantity of Effluent per Single Family Home (constant)	26.70	ft3/day
P	Precipitation	12.0	in/year
V	Percent of Precipitation Recharging Ground Water (usually constant)	0.20	

EQUATIONS			
W	Width of Mixing Zone Perpendicular to Ground Water Flow = (0.175)(L)+(Y)	157.50	ft
Am	Cross Sectional Area of Aquifer Mixing Zone = (D)(W)	2583.00	ft2
As	Surface Area of Mixing Zone = (L)(W)	78750.00	ft2
Qg	Ground Water Flow Rate = (K)(I)(Am)	519.18	ft3/day
Qr	Recharge Flow Rate = (As)(P/12/365)(V)	43.15	ft3/day
Qe	Effluent Flow Rate = (#I)(QI)	26.70	ft3/day

SOLUTION

Nt	**Nitrate (as Nitrogen) Concentration at End of Mixing Zone =((Ng)(Qg)+(Nr)(Qr)+(Ne)(Qe)) / ((Qg)+(Qr)+(Qe))**	**3.31**	**mg/L**

BY:
DATE: February 25, 2004

G:\WPB\SUBDIV\WORKSPAC\WDEG\WSA.XLS *REV. 12/98*

Montana Bureau of Mines and Geology
Ground-Water Information Center Site Report
DIXON BOB

Plot this site on a topographic map

Location Information

GWIC Id: 150298
Location (TRS): 13S 07W 32 BB
County (MT): BEAVERHEAD
DNRC Water Right:
PWS Id:
Block:
Lot:
Addition:

Source of Data: LOG
Latitude (dd): 44.6643
Longitude (dd): -112.4883
Geomethod: TRS-TWN
Datum: NAD27
Certificate of Survey:
Type of Site: WELL

Well Construction and Performance Data

Total Depth (ft): 55.00
Static Water Level (ft): 10.00
Pumping Water Level (ft):
Yield (gpm): 40.00
Test Type: BAILER
Test Duration: 2.00
Drill Stem Setting (ft):
Recovery Water Level (ft):
Recovery Time (hrs):
Well Notes: WATER TEMP 68'F

How Drilled: CABLE
Driller's Name: GRAHAM
Driller License: WWC529
Completion Date (m/d/y): 2/14/1995
Special Conditions:
Is Well Flowing?:
Shut-In Pressure:
Geology/Aquifer: Not Reported
Well/Water Use: DOMESTIC

Hole Diameter Information

No Hole Diameter Records currently in GWIC.

Annular Seal Information

From	To	Description
0.0	18.0	

Casing Information[1]

From	To	Dia	Description
-1.5	48.5	6.0	STEEL

Completion Information[1]

No Completion Records currently in GWIC.

Lithology Information

From	To	Description
0.0	4.0	TOPSOIL
4.0	13.0	GRAVEL & COBBLE
13.0	16.0	GRAVEL & COARSE SAND & WATER
16.0	18.0	GRAY SILT SAND
18.0	40.0	GRAY CLAY & SAND
40.0	42.0	GRAVELS
42.0	54.0	BROWN CLAY & SAND
54.0	55.0	BEDROCK

[1] - All diameters reported are **inside** diameter of the casing.

BEAVERHEAD COUNTY SANITARIAN

COURTHOUSE

2 SOUTH PACIFIC

DILLON, MONTANA 59725-2799

PH: (406) 683-3770
FAX: (406) 683-3769

SOILS AND SITE DESCRIPTION

LEGAL DESCRIPTION: NW¼, NW¼ section 31, T 13 S, R 7W
SITE ADDRESS 4000 Lima Dam Road
TEST PERFORMED FOR: Ted Smith -
address: _____ phone: _____

HORIZON	DEPTH	DESCRIPTION	COLOR
A	0-4	Top Soil - Silt	
B	4-36	Silty Sand with Gravel	
C	36-72"	Sand + Gravel	

SITE DESCRIPTION: River Bottom Alluvial Deposit near the Red Rock River

SLOPE: 0-2% Aspect West

FLOOD POTENTIAL: Should be out of the floodplain of the Red Rock River - Valley is very wide with several overflow channels - Site is the highest spot in the area.
(AND STREAMS, WATER BODIES)

BEDROCK: No Bedrock to 72"

GROUNDWATER: Evidence of Ground water @ 48" with Ground water currently at 60" - Built up system only.

SOILS EVALUATION BY: [signature] RS

DATE: 2-6-04

Permit # 1203

CONDUCTIVITY CALCULATIONS: NAME: River Valley Ranch

Q/S=T/1500 Q=GPM
S= PUMPING LEVEL MINUS STATIC WATER LEVEL
DRAWDOWN

PUMP LEVEL = 50
STATIC LEVEL = 10

T = Q(1500)/S X .134

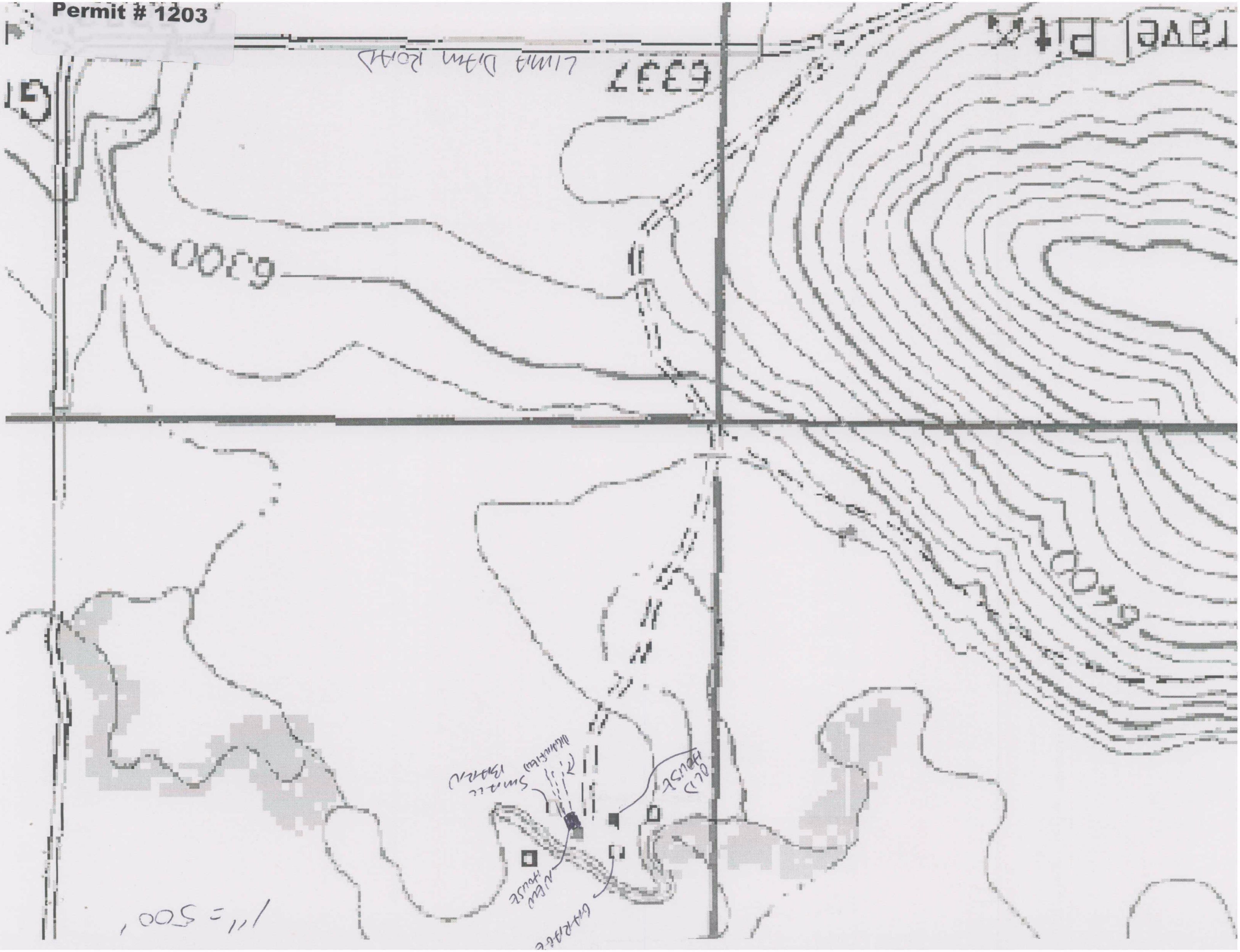
Q = 40
S = 40

T = 201

K = T/b b = 1 b = AQUAFER THICKNESS- (PIPE PERFORATIONS)

K = 201 FT/DAY

Permit # 1203



ravel Pit
6337
6300
6400
LIMA DAM ROAD
1'' = 500'
NEW HOUSE
OLD HOUSE
GARAGE

BEAVERHEAD COUNTY SANITATION AND ENVIRONMENTAL HEALTH DEPARTMENT

2 S. Pacific St.
Phone 683-3770

Dillon, MT 59725
Fax 683-3769

Permit # 1203

2-26-04

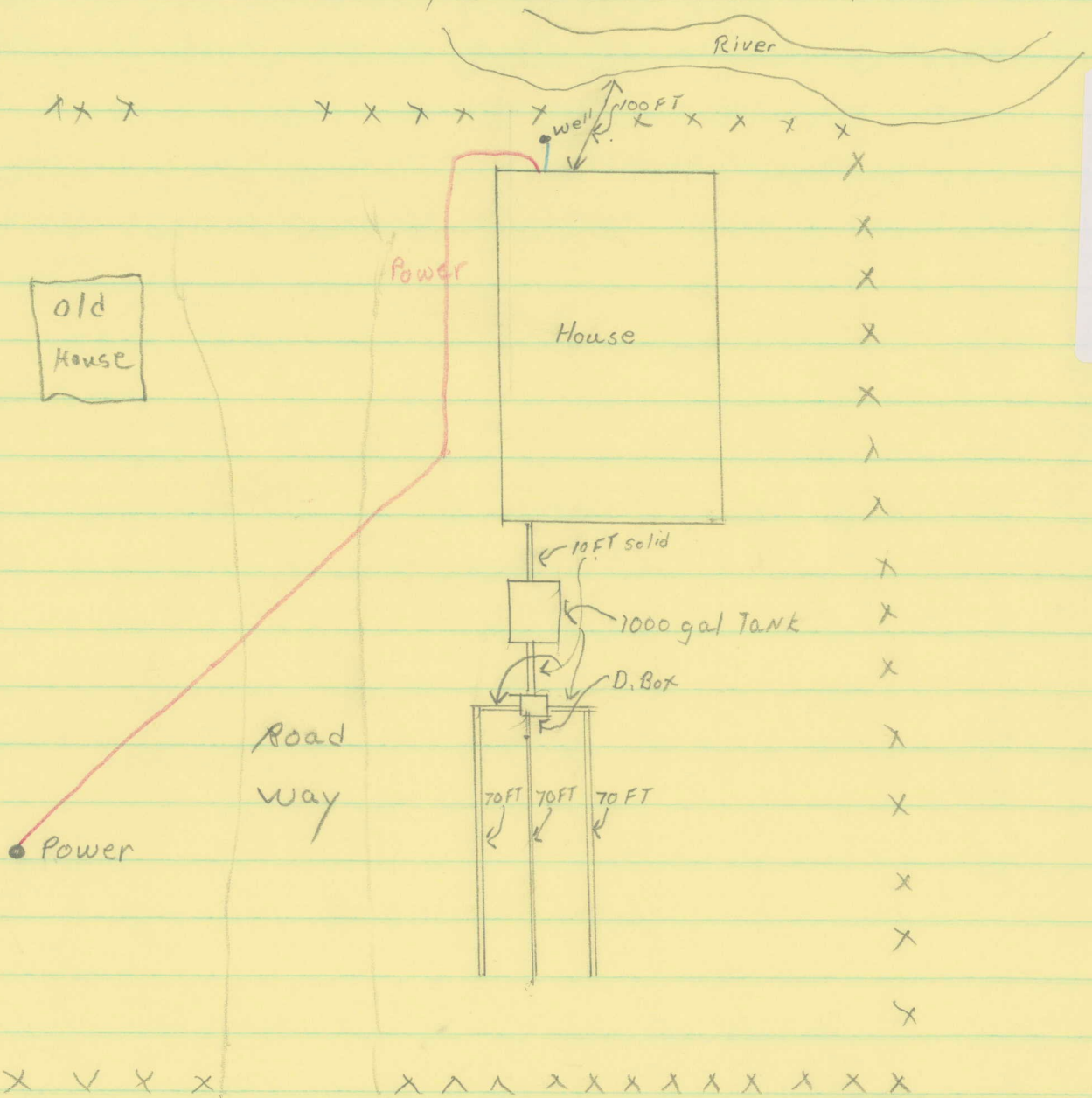
Ted Schmidt
River Valley Ranch LP
PO Box 10175
Bozeman, MT 59725

Dear Ted,

Enclosed please find the septic permit you submitted. I however did not find the money for the permit fee of $75.00. If you would send us a check ASAP we would appreciate it.

Sincerely, Larry Laknar RS

River Valley Ranch Ted Schmidt Permit No. 120



PUT IN TO STATE CODE

Steve Huffaker

SUBSCRIBED AND SWORN TO BEFORE ME
THIS 8 DAY OF February 2005

NOTARY PUBLIC - STATE OF MONTANA
PAUL N. PILGRIM
RESIDING AT DILLON, MONTANA 59725
MY COMMISSION EXPIRES 2 January 2007

Permit # 1203

Name of owner of system RIVER VALLEY RANCH Permit No 1203-04

Sanitarian Inspection results

TO BE COMPLETED BY INSTALLER:

SEPTIC TANK:

Distance from nearest live water source (min. 50 ft.) 210 FT Actual 210
Distance from foundation (min. 5 ft.) 15 FT Actual 15
Size 1000 gal (gallons) Compartments TWO OK ✓
Tank Material manhole & skrings Tank Level 1 FT from Top of ground OK ✓
Inlet line slope (1/8"/ft min.) good yes OK ✓
Outlet line slope (1/8"/ft.min.) good yes OK ✓

DISTRIBUTION BOX? Yes ✓ No
Box level 1FT 8" Outlets same level from bottom yes OK ✓
Number of outlets 3 Inlets and Outlets sealed yes OK ✓

LIFT STATION? Yes No ✓ Size OK NA
Pump size Controls type (float) (timer) OK

DRAINFIELD:

Conventional NO; Open NO Laterals capped NO — INFI FRATER 36"
closed loop NO Laterals level NO
Alternative NO Experimental NO OK ✓
Distance from nearest source of water 210 FT (100ft min.) Actual 210
Distance from foundation 35 FT (10ft min.) Actual 35
Specified lineal feet of perforated drainpipe NO Actual 210
Distance between drainlines 10 FT (8 ft min. on centers) Actual 10
Type of dispersement material? Washed gravel NO Other OK
Under pipe: NO (6"min) Over pipe NO (2"min) OK NA
Soil/gravel barrier? Straw NO Bldg paper NO Semiperm Memb OK

ATTACH AN AS BUILT SKETCH OF INSTALLATION: OK ✓

Verification by Installer: I have installed this system as specified in the septic permit to Beaverhead County and DEQ standards:

Steve Huffaker — *Installer signature* 12-28-04 — *Date*

Inspector's Comments: As built, Photos and Verification OK

This system by evidence provided or actual inspection is installed to Beaverhead County and DEQ specifications and standards and is approved for closure and coverup on 2-10-05 (date)

By: RS
(sanitarian, health department official)

Permit # 1203

Permit # 1203