

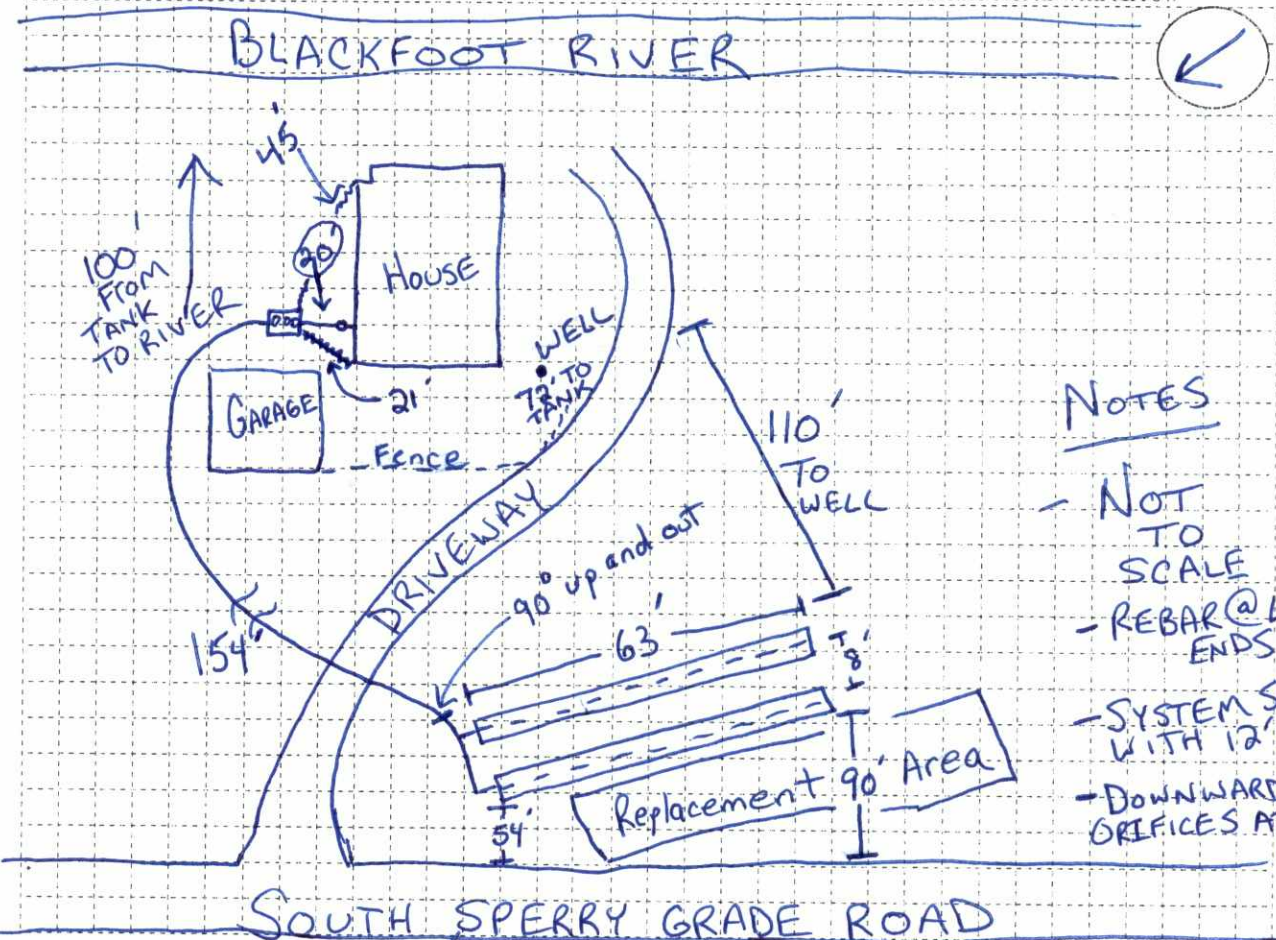
**WASTEWATER TREATMENT SYSTEM INSPECTION REPORT**

Name of Owner MT DNRC - Tom Jacobs (leasee)  
 Legal Address/Location 15500 South Sperry Grade Road, Bonner, MT 59823  
 Certified Installer GARY LEWIS Soil Type Extremely gravelly/cobbly loamy sand

System Type: New  Replacement \_\_\_\_\_  
 Modified \_\_\_\_\_  
 No. of Bedrooms Permitted 3  
 Trenches: Standard \_\_\_\_\_ Gravelless  PATS \_\_\_\_\_  
 Distribution: Gravity \_\_\_\_\_ Pressure  \_\_\_\_\_  
 Sqrt Height 7'  
 Septic Tank: Capacity (Gal): 1000 Pump: 500  
 Concrete  N  
 Depth to top: 2  
 Paved?  Y  N  
 Filter?  Y  N  
 Child Safety Basket?  Y  N  
 DF Total length 126 ft  
 Trench/Bed Depth (in.) 24-36  
 # of Laterals 2  
 Seepage Pit: Height \_\_\_\_\_ ft.  
 Depth to Top \_\_\_\_\_  
 Distance of Abs System From:  
 Prop. Lines: 10' Wells: 100'+  
 Surface Water: 100'+ Tank: 510'+

Septic Tank- Latitude: D 47 M 00 S 37.7 Longitude: D 113 M 19 S 24.7  
 Abs System- Latitude: D 47 M 00 S 37.0 Longitude: D 113 M 19 S 26.6

Indicate North with Arrow



- NOTES**
- NOT TO SCALE
  - REBAR @ LATERAL ENDS
  - SYSTEM SAND-LINED WITH 12" MED SAND
  - DOWNWARD FACING ORIFICES AT LATERAL ENDS AND EVERY 25'

Approved  Disapproved \_\_\_\_\_  
 Sanitarian James J. Evans, R.S. Date 08/04/2016

Corrections Necessary: Installer must have a happy anniversary!

Inspection Witnessed By: [Signature] 8/4/16

Deficiencies Corrected: Yes \_\_\_\_\_ No \_\_\_\_\_  
 Sanitarian \_\_\_\_\_ Date \_\_\_\_\_

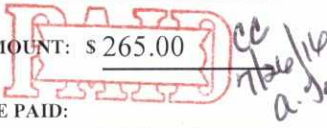




NEW  
DEPT

MISSOULA CITY-COUNTY HEALTH DEPARTMENT  
301 W. ALDER, MISSOULA MT 59802  
(406) 258-4755 FAX (406) 258-4781

PERMIT #: 2016-105

PERMIT FEE AMOUNT: \$ 265.00  
DATE PAID: 

SEPTIC PERMIT

Owner Name: MT DNRC- Tom Jacobs (leasee) Phone: 231-357-7212  
Owner Mailing Address: 6292 Aarwood Road City Rapid City State MI Zip 49676  
Certified Installer: Gary Lewis  
Location of Installation: 1/4 SW T 15 R 14 S 36 Other: N/A  
Address of Site: 15500 South Sperry Grade Road City Bonner Zip 59823  
Certificate of Survey #: 5714 Subdivision: N/A  
Tract: 7 Lot: N/A Block: N/A Other: N/A Parcel Size: 1.22 acres  
General Area Name: BLACKFOOT Geocode: 2435-36-2-02-05-0000

Site plan matches state approval?	<u>N/A</u>
All separations met?	<u>YES</u>
Any additional existing septic systems?	<u>NO</u>
Upgrade required?	<u>N/A</u>
Floor Plans Attached?	<u>YES</u>

NON-DEG requirements met?	<u>YES</u>
MWTPSA requirements met?	<u>N/A</u>
Within 100' of Floodplain/Flood prone?	<u>NO</u>
Well Permit Required?	<u>N/A</u>
Checklist on reverse completed?	<u>YES</u>

WELL PERMIT #: pre-permit WATER SUPPLY: WELL-INDV  
TYPE OF SYSTEM:  Residential: #Dwelling Units- 1 #of Bedrooms- 3 + Unfinished Basement? NO  
 Commercial: Use #Employees- #Customers-  
DESIGN GALLONS PER DAY: 300

SYSTEM SIZING

APPLICATION RATE: (Gal/day or sq. ft./bedroom): .6 FROM: Site Eval #2016-030SE  
SOIL TYPE: Extremely gravelly/cobbly loamy sand

SYSTEM DESIGN (TOTAL MINIMUM REQUIRED)

DISTRIBUTION TYPE: PRESSURE SEPTIC TANK SIZE: 1000 GAL DOSE TANK SIZE: 500 GAL  
ABSORPTION SYSTEM TYPE: DRAINFIELD SQUARE FEET: 500 LINEAL FEET: 167  
TRENCH WIDTH: 3 feet LINEAL FEET IF CHAMBERS ARE USED: 125

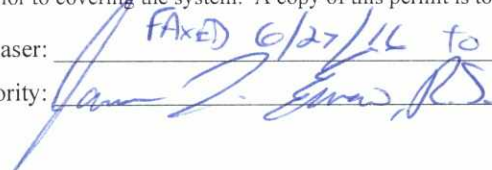

SPECIAL CONDITIONS/ADDITIONAL COMMENTS

-Permit is for a new system to serve a two bedroom cabin. System is sized/permitted for three bedrooms per current minimum sizing requirements. INSTALL SYSTEM EXACTLY AS SHOWN ON ATTACHED SITE PLAN IN ORDER TO PASS PHOSPHOROUS BREAKTHROUGH. System must be sand lined with 12" sandy loam or medium sand below trench bottom. Install in location shown on the attached site plan. Install effluent filter on tank outlet. Install child safety baskets on all risers 22" or greater in diameter.

Any well and/or drainfield must be installed as shown on an applicable Certificate of Subdivision Plat Approval (76-4-130 MCA)

As purchaser of this permit, I agree to comply with all requirements for installation as described in Missoula City-County Health Code Regulation #1, DEQ Circular 4 and special conditions described above. This document does not release me from complying with any other State, Federal or Local regulations including but not limited to zoning, building and floodplain regulations.

This permit is valid for twelve (12) months from date of purchase. Sewage disposal systems must be completed within this time and inspected by the Department prior to covering the system. A copy of this permit is to be on site at all times during construction and inspection of the system.

Permit purchaser:  Date: 6/27/16  
Health Authority:  Date: 6/27/16



YES	NO	NA		COMMENTS
			<b>Necessary Attachments</b>	
X			Floor plans	
X			Site Plan	
		X	<ul style="list-style-type: none"> <li>Does it match the DEQ approval?</li> </ul>	
X			<ul style="list-style-type: none"> <li>Does it show all separations are met?</li> </ul>	
X			<ul style="list-style-type: none"> <li>Is an adequate replacement area shown?</li> </ul>	
X			Pressure Distribution information	
		X	Use Agreement	
		X	<ul style="list-style-type: none"> <li>Have the Use Agreement Conditions been listed in the permit comments?</li> </ul>	
			<b>Non Degradation Analysis</b>	
X			Non Deg applicable (If yes, choose one of the following)	
	X		<ul style="list-style-type: none"> <li>Completed as part of subdivision review</li> </ul>	
X			<ul style="list-style-type: none"> <li>Completed as part of a site evaluation</li> </ul>	
	X		<ul style="list-style-type: none"> <li>Completed as part of this permit (attached)</li> </ul>	
			<b>DEQ Approval</b>	
			Parcel created before 5/27/61	DNRC lease lot
			Parcel created after 5/27/61	
			<ul style="list-style-type: none"> <li>The parcel has a COSA</li> </ul>	
X			<ul style="list-style-type: none"> <li>Tractland (&gt;5 acres before 1973, &gt;10 acres before 1975, &gt;20 acres)</li> </ul>	
			<ul style="list-style-type: none"> <li>Exemption that doesn't require review</li> </ul>	
			<ul style="list-style-type: none"> <li>Other (explain why permit can be issued without review)</li> </ul>	
			<b>Soils</b>	
X			<ul style="list-style-type: none"> <li>Sand-Lining Required? Soil spec noted in permit conditions?</li> </ul>	
		X	<ul style="list-style-type: none"> <li>Clay soils - loam/sandy soil remark in permit conditions?</li> </ul>	
			<b>Separations</b>	
X			Meets separation distances	
			Replacement System does not meet separation distances	
		X	<ul style="list-style-type: none"> <li>Pressure Distribution required</li> </ul>	
		X	<ul style="list-style-type: none"> <li>Shallow or Elevated system required</li> </ul>	
			<b>Floodplain</b>	
X			100' or more from the floodplain	
			Replacement system out of the floodplain, but within 100'	
			Replacement system in the floodplain: elevated sand mound or advanced treatment	
			<b>Public Sewer</b>	
X			Public Sewer not available	
			Public Sewer available, but connection not allowed by _____ on _____ (date)	
			<b>Special Management Areas</b>	
		X	Missoula Wastewater Treatment Plant Service Area SMA	
		X	<ul style="list-style-type: none"> <li>Waiver on Subdivision Plat</li> </ul>	
		X	<ul style="list-style-type: none"> <li>Deed Restriction filed</li> </ul>	
		X	Rattlesnake SMA	
		X	Roman Creek/Touchette Lane SMA	
		X	Seeley Lake SMA	
		X	SMA conditions met?	
			<b>Seepage Pits</b>	
		X	25' to groundwater	
		X	System is a replacement system	
		X	Waiver filed in MWTPSA	
			<b>Existing Tanks</b>	
		X	Condition and capacity verified	
		X	Tank pumped, or required before final approval	
			<b>Cesspools</b>	
X			Have existing cesspools on property with new or increased use been upgraded?	



NEW  
DEPT

MISSOULA CITY-COUNTY HEALTH DEPARTMENT  
301 W. ALDER, MISSOULA MT 59802  
(406) 258-4755 FAX (406) 258-4781

PERMIT #: 2016-105

PERMIT FEE AMOUNT: \$265.00

DATE PAID:

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Permit purchaser: [Signature] Date: 7/27/16  
Health Authority: [Signature] Date: 6/27/16

RECEIVED JUL 27 2016

RECEIVED JUN 01 2016

MISSOULA COUNTY

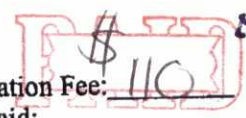


MISSOULA CITY-COUNTY HEALTH DEPARTMENT  
301 WEST ALDER  
MISSOULA, MONTANA 59802-4123  
(406) 258-4755 FAX (406) 258-4781

Applicant Notified: 6/27/16

2016-105

Application Fee: 110  
Date Paid: 6/10/16



Wastewater Treatment System and Well Application

Owner's name Tom Jacobs Phone # 231-357-7212  
Owner's address 6292 Ackwood Rd ~~Appt~~  
City: Rapid City State: MT Zip Code: 49676  
Certified Installer: Deer Creek Exc (If you haven't decided yet, ensure installer is certified by MCCHD)

Applicant Information (if different from owner)

Applicant's name Gary Lewis Phone # 677-4072  
Applicant's address PO Box 523  
City: Seeley Lake State: MT Zip Code: 59868

Legal description of site: (Can be found on your tax statement or the Missoula County Property Database at [www.co.missoula.mt.us/Owner/Default.aspx](http://www.co.missoula.mt.us/Owner/Default.aspx))

GeoCode: 04-2435-36-2-02-05 Short Legal: T SN R NW Section 36 1/4 Section SW  
Certificate of Survey # or Subdivision Name: 0099 5714  
Tract or Lot 7 Block (if applicable): \_\_\_\_\_ Size of lot or parcel: 1.218 Acres

Address Assigned by the County Road Department (Apply at Public Works, 6089 Training Dr., PH: 258-4753):

Address: 5714 Sperry Grade Rd City: Greenough Zip 59823

\*\*\*\*\*Well Applications Only\*\*\*\*\*

Type of Well: New  Replacement  Reason for Replacement: \_\_\_\_\_

Intended Uses of Well: \_\_\_\_\_

Number and description of dwelling units and structures that will be connected to the well:

NA

Will the well be: At least 100 feet from septic systems Yes  No  Unsure   
Out of the floodplain Yes  No  Unsure   
At least 100 feet from surface water Yes  No  Unsure

(OVER: Please complete other side)



\*\*\*\*\* Wastewater Applications Only\*\*\*\*\*

**Wastewater System Information:** New  Replacement  Modification

Residential  Number of dwelling units 1 Number of bedrooms 2  
 Will there be a basement? NA Will it be finished? \_\_\_\_\_  
 Commercial  Use \_\_\_\_\_ # Employees \_\_\_\_\_ # Customers \_\_\_\_\_  
 Other  Describe Use \_\_\_\_\_

**Will the drainfield be:**

At least 100 feet from wells	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Unsure <input type="checkbox"/>
At least 10 feet from water lines	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Unsure <input type="checkbox"/>
At least 100 feet from floodplain	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Unsure <input type="checkbox"/>
At least 100 feet from surface water	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Unsure <input type="checkbox"/>
At least 6 feet from groundwater	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Unsure <input type="checkbox"/>
At least 10 feet from property lines	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Unsure <input type="checkbox"/>
At least 10 feet from buildings	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Unsure <input type="checkbox"/>
On a slope less than 25%	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Unsure <input type="checkbox"/>

**Surface Water:** Describe the nearest surface water to the drainfield: Dakota river  
 How close is it to the drainfield? 150'

**Drinking Water:** What is the drinking water source for the parcel? well  
 (Well, Spring, Lake, etc.)  
 How many structures are served by the water system? 1

**Floor Plans:** Attach floor plans (no larger than 11" by 17") for all structures to be served by the wastewater system (even if they are not directly connected to the system.) Floor plans don't have to be to scale and can be hand drawn. Label the rooms.

\*\*\*\*\* All Applications\*\*\*\*\*

**Existing Structures:** Describe existing structures, wells and wastewater systems on the parcel:

Cabin - 2 bedroom, with well and outhouse

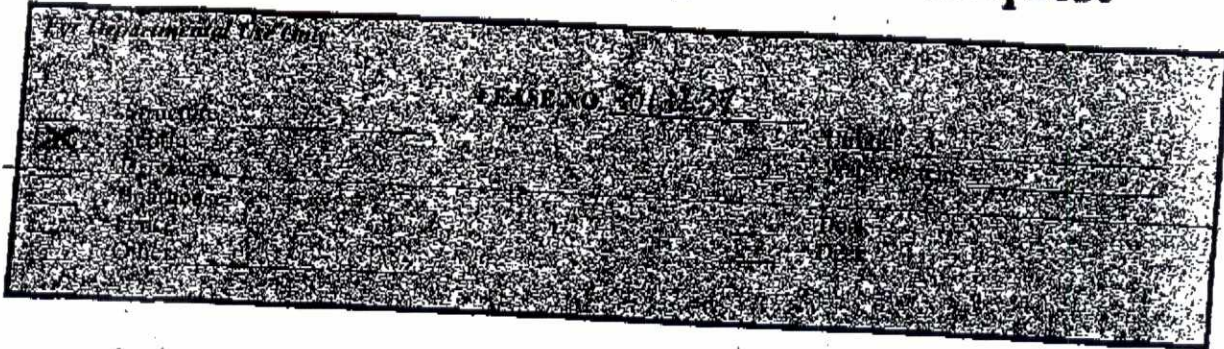
**Site Plan:** Attach a site plan (no larger than 11" by 17") showing the locations (existing and proposed) of all features (existing and proposed) listed below. Site plans can, but don't have to be prepared to scale by a professional engineer or architect. If the site plan is not drawn to scale, include enough measurements to accurately depict where everything is on the property.

- \* Property Lines
- \* Buildings
- \* Roads & Driveways
- \* Wastewater Systems
- \* Surface Water
- \* Floodplain & Floodprone Areas
- \* Water Supplies (wells)
- \* Easements and No Build Zones
- \* Wells and Wastewater Systems within 100 feet of your property

**Certification:** I certify that the information I have provided on this application is accurate and true and that the submitted site plan is an accurate representation of all required elements.

Applicant's Signature: [Signature] Date: 6-1-16

# DNRC Response to Improvement Request



Date: 7/25/2016

Lessee: Jacobs

Mailing Address: \_\_\_\_\_

Lot: 7 Neighborhood: Sperry Grade

Dear Lessee,

The specific purpose of this letter is to respond to your request on 7/13/2014 (date) to proceed with project(s) associated with the development of your lease lot.

Those projects included requesting permission to (see improvements request attached):

Construct/install a septic system contingent upon Missoula County Health Department approval.

Septic system shall be on-site. Contingent upon lease transfer Lynch to Jacobs Aug 2016.

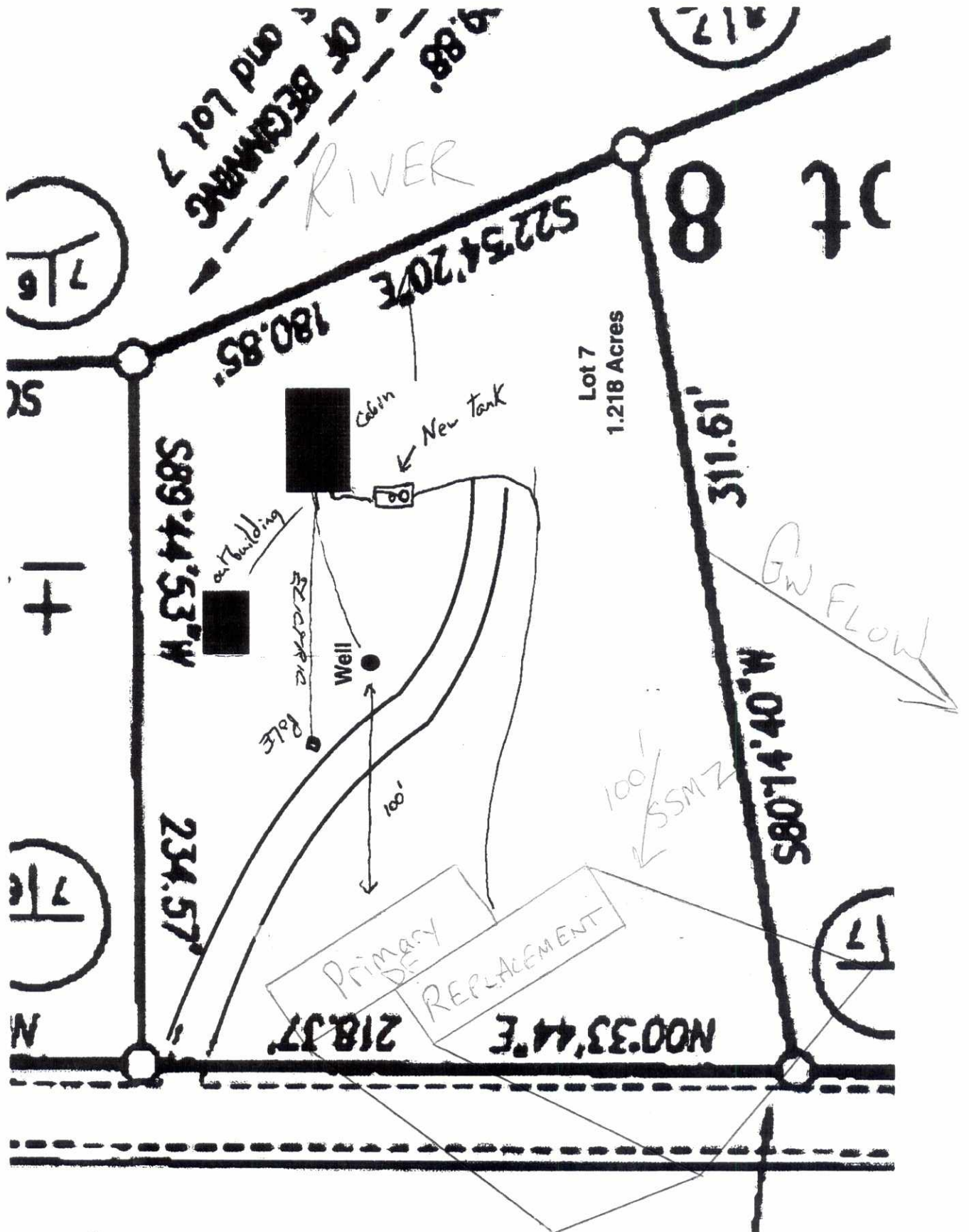
The improvements have been approved \_\_\_\_\_ approved with conditions X  
Or denied \_\_\_\_\_

This authorization remains in effect until 7/25/2017, ~~200~~ (1 years). If at any time you anticipate difficulty meeting this condition please contact us and we will review your situation.

This approval does not constitute approval for other regulatory agencies. Such requirements are the responsibility of the lessee per lease clause IV. Responsibilities of the Lessee. A. Laws and Rules.

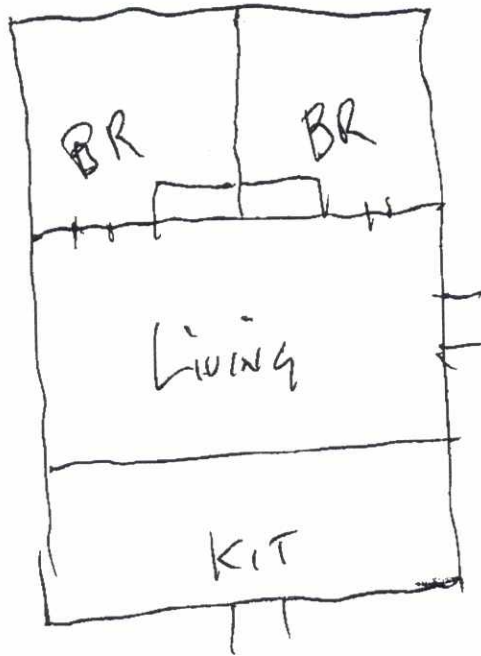
DNRC Unit Manager Signature/Date K. Boland-Dickinson 7/25/2016  
 DNRC Land Use Planner Area Signature/Date [Signature] 7/25/16





100-foot easement for use by the genus





River

# SUMMARY

2016-105

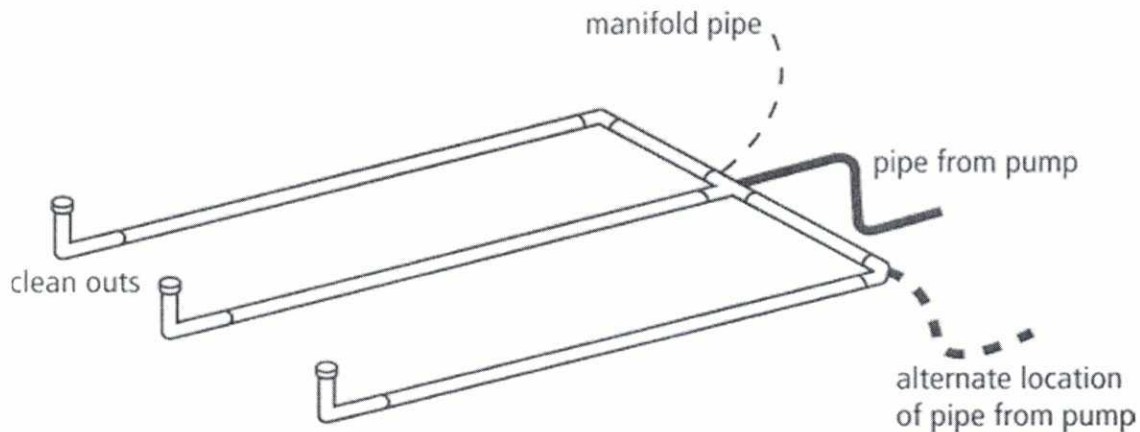
Date: 07/26/2016

## END MANIFOLD ENTRY POINT FROM END OF MANIFOLD

* LINEAL FEET REQUIRED	167 FT.
* NUMBER OF LATERALS	3
* LATERAL SPACING	7 FT
LENGTH OF LATERALS	55.66667 FT.
* ORIFICE SPACING	3 FT
ORIFICES PER LATERAL	19
first orifice placed at	1.5 ft
* ORIFICE SIZE 5/32"	0.15625 INCH
* LATERAL DIAMETER 1 1/2"	1.61 INCH
MANIFOLD LENGTH	14
* MANIFOLD DIAMETER 2"	2.067 INCHES
* LENGTH OF TRANSPORT PIPE	60 FT
* DIAMETER OF TRANSPORT PIPE 1 1/2"	1.61 INCH
* RESIDUAL HEAD	5 FT.
* ELEVATION DIFFERENCE	15 FT
TOTAL VOLUME OF PUMP CHAMBER	500

<b>PUMP REQUIREMENTS</b>	38.76 GPM
	25.78 FT OF HEAD

ELEVATION LEFT FOR PUMP COVER 28.45455 INCHES, PUMP MUST BE SHORTER THAN





# PRESSURE LATERAL HEAD LOSS ANALYSIS

2016-105

Date: 07/26/2016

ORIFICE SEPARATION (FT)                    3  
 ORIFICE SIZE (IN)                         0.15625  
 LATERAL DIAMETER (IN)                   1.61  
 RESIDUAL HEAD (FT)                       5

	LENGTH	RESIDUAL HEAD	ORIFICE DISCHARGE	SEGMENT FLOW	HEAD LOSS
THE PROGRAM					
COMPUTES RESIDUAL	3	5.000	0.676		
HEAD AT EACH ORIFICE				0.676	0.000
FOR A TOTAL OF 50 FEET.	6	5.000	0.676		
YOU CAN DETERMINE THE				1.352	0
PERCENT VARIATION FOR	9	5.000	0.676		
THE SYSTEM BASED ON				2.028	0.001
THE PARAMETERS	12	5.001	0.676		
ENTERED BY				2.704	0.002
SUBTRACTING THE	15	5.003	0.676		
ORIFICE FLOW AT THE				3.380	0.003
END FROM THE ORIFICE	18	5.006	0.676		
FLOW AT THE SELECTED				4.056	0.004
	21	5.01	0.677		
				4.733	0.005
	24	5.015	0.677		
				5.41	0.006
	27	5.021	0.677		
				6.087	0.008
	30	5.029	0.678		
				6.765	0.01
	33	5.039	0.678		
				7.443	0.011
	36	5.05	0.679		
				8.122	0.014
	39	5.064	0.68		
				8.802	0.016
	42	5.08	0.681		
				9.483	0.018
	45	5.098	0.682		
				10.165	0.02
	48	5.118	0.684		
				10.849	0.023
	51	5.141	0.685		
				11.534	0.026
	54	5.167	0.687		
				12.221	0.029
	57	5.196	0.689		
				12.91	0.032
	60	5.228	0.691		
				13.601	0.035

63	5.263	0.693	14.294	0.038
66	5.301	0.696	14.99	0.042
69	5.343	0.699	15.689	0.046
72	5.389	0.702	16.391	0.050

EFFECTIVE LAT LENGTH 54.16666667 FT

ENTER CELL VALUE OF ORIFICE DISCHARGE (IN COLUMN D) FOR THE CORRESPONDING EFFECTIVE LAT LENGTH(Column B)	0.687	VARIATION IN DISCHARGE BETWEEN FIRST AND LAST ORIFICE. (GPM)	0.011
--	-------	--	-------

HEAD LOSS IN LATERAL	0.167
ENTER HEAD FOR LAT LENGTH, COLUMN "C"	5.167

PERCENT VARIATION (%) IN LATERAL PRESSURE 0.99%

HEADLOSS ACROSS SYSTEM	LATERAL	MANIFOLD	TOTAL	FT
	0.167	0.12	<b>0.287</b>	
PERCENT DIFFERENCE ACROSS SYSTEM			<b>5.74%</b>	



**'ITEMS MARKED WITH AN ASTERISK IN BOLD REQUIRE ENTERING  
END MANIFOLD ENTRY POINT FROM END OF MANIFOLD**

**2016-105**

Date: 07/26/2016

* LINEAL FEET REQUIRED	167 FT.	ENTER LINEAL FEET OF PIPE
* NUMBER OF LATERALS	3	TOTAL NUMBER OF LATERALS (BOTH SIDES)
* LATERAL SPACING	7 FT	
<b>LENGTH OF LATERALS</b>	55.66667 FT.	COMPUTED (LENGTH ON EACH SIDE OF MANIFOLD)
<b>SPACES BETWEEN LATERALS</b>	2	COMPUTED FOR MANIFOLD LENGTH
* ORIFICE SPACING 3 FT FOR SANDS 4 FT FOR LOAMS 5 FT FOR SILT LOAMS 5 FT FOR CLAYS	3 FT	SELECT LESS DISTANCE FOR SANDS UP TO 5 FEET FOR CLAY SOILS ENTER AND MODIFY AS NEEDED AFTER COMPUTATION IS RUN FOR FIRST TIME (ADJUST IF NEEDED)
<b>ORIFICES PER LATERAL</b>	19	THIS VALUE IS COMPUTED FOR YOU
<i>first orifice placed at</i>	1.5 ft	(Lat. Length - ((spacing X (orifices - 1)))/2
* LATERAL DIAMETER 1 1/2" FROM TABLE A1- 1	1.61 INCH	SELECT A LATERAL DIAMETER USING TABLE A1-1. TAKING INTO ACCOUNT LENGTH AND ORIFICE SIZE
* ORIFICE SIZE 5/32" FROM TABLE A1-1	0.1563 INCH	SELECT SMALLEST ORIFICE SIZE AND LATERAL SIZE ALLOWED TO MINIMIZE PUMP SIZE
<b>ORIFICE DISCHARGE RATE</b>	0.68 GPM	DISCHARGE RATES ARE COMPUTED FOR YOU
<b>LATERAL DISCHARGE RATE</b>	12.92 GPM	TOTAL FLOW PER LATERAL
<b>PUMPING VOLUME</b>		
<b>MANIFOLD LENGTH</b>	14	THIS IS COMPUTED USING 6' SPACING
* <b>MANIFOLD DIAMETER 2"</b> FROM TABLE 1	2.067 INCHES	AND MANIFOLD AT THE CENTER USE LATERAL DIS. RATE, CENTER MAN
<b>MANIFOLD VOLUME</b>	2 GAL	THIS IS COMPUTED FOR YOU
<b>LATERAL DOSE VOLUME</b>	88 GAL	COMPUTED
<b>PIPE VOLUMES FOR DOSE</b>	5	ENTER # OF PIPE VOLUMES YOU WANT FOR DOSE
<b>TRANSPORT PIPE VOL.</b>	6 GAL	COMPUTED
* <b>LENGTH OF TRANSPORT PIPE</b>	60 FT	HOW LONG IS TRANSPORT PIPE?
* <b>DIAMETER OF TRANSPORT PIPE 1 1/2'</b>	1.61 INCH	USE FRICTION LOSS TABLE TO HELP YOU MINIMIZE HEAD LOSS TABLE 9
<b>TOTAL PUMPING VOLUME</b>	96 GAL	COMPUTED
<b>TOTAL DISCHARGE RATE</b>	38.76 GAL/MIN	COMPUTED
<b>PUMPING HEAD</b>		
<b>FRICTION LOSS</b>	COMPUTED	$f=10.46*L*Q^{1.85}/C^{1.85}*D^{4.87}$
<b>MANIFOLD</b>	0.12 FT	$(10.46*(B34/3)*B47^{1.85})/(150^{1.85}*B35^{4.87})$
<b>LATERALS</b>	0.61 FT	$(10.46*B10*B30^{1.85})/(150^{1.85}*B22^{4.87})$
<b>TRANSPORT PIPE</b>	5.05 FT	

<b>TOTAL FRICTION LOSS</b>	5.78 FT	
* RESIDUAL HEAD	5 FT.	MIN. OF 2.3' REQUIRED
* ELEVATION DIFFERENCE	15 FT	ENTER DIFFERENCE IN ELEVATION
<b>TOTAL HEAD REQUIRED</b>	25.78 FT	BETWEEN PUMP AND LATERALS COMPUTED
<b>PUMP REQUIREMENTS</b>	<b>38.76 GPM</b>	COMPUTED PUMP REQUIREMENTS
	<b>25.78 FT OF HEAD</b>	
<b>PUMP SETTINGS</b>		
TOTAL VOLUME OF PUMP CHAMBER	500	500 OR 1000 FOR HUNTON
VOLUME PER INCH IN CHAMBER	11	1000/500 = 11.0; 1500/500 = 10.64; 1000 = 21.28; 7.83 for 500 and 250 HUNTON TANKS
RESERVE VOLUME	75	GALLONS
TOTAL PUMPING VOLUME	96	GALLONS
DEPTH OF CHAMBER	47	INCHES
DEPTH NEEDED FOR RESERVE	6.8	INCHES
DEPTH NEEDED TOTAL DOSE	8.7	INCHES
BUFFER BETWEEN ALARM & ON LEVEL	3	INCHES
ELEVATION LEFT FOR PUMP COVER	28.5	INCHES, PUMP MUST BE SHORTER THAN