

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 85-15640

Exam Date: October 3, 2012

1. Current Owner: GARY HAAS
MONA HAAS
6280 HEPTON LANE
LEWISTON ID 83501
(208)799-0908

2. Accompanied by: GARY AND MONA

3. **SOURCE**

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NONE
2. Other water rights with the same point of diversion: NONE

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER SE1/4SE1/4 Sec. 3, Twp 35N, Rge 05W, B.M. NEZ PERCE County

Method of Determination: GPS Pts (46.400625, -116.938645)

2.

PLACE OF USE: DOMESTIC AND IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals	
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE		
35N	05W	3																	2.5	2.5

Total Acres: 2.5 acres

Method of Determination: Field visit and aerial imagery

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- ☐ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- ☐ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☐ Photo of Diversion and System Attached

4.

Well or Diversion**ID No.*****Motor Make****Hp****Motor Serial No.****Pump Make****Pump Serial No. or Discharge****Size**

D0039660

Originally had a 20 hp pump but burned out and swapped with a 10 hp pump with extra storage

Discharge size PVC pipe is 1 1/4" in size.

D. FLOW MEASUREMENTS

1.

Measurement

Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
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No measurement obtained at the field examination.

2. Measurements: NONE

E. FLOW CALCULATIONS

___N___ Additional Computation Sheets Attached

Measured Method:

1). Horsepower equation where, $8.8 \times 10 \times 0.7 / 920 + (2.31 \times 40) = 61.6/1012.4 = 0.06 \text{ cfs}$ $hp = 10$ $8.8 \times 10 \times 0.7 / 920 + (2.31 \times 10) = 61.6/943.1 = 0.065 \text{ or } 0.07 \text{ cfs}$

Depth to water = 920' (perforated pipe section per the well driller's report)

Pressure = 40 psi based on standard pressure in home

OR 10 psi based on open discharge into storage tank with back pressure.

2). Pipe capacity when designed at 5 fps = Equation $V(\text{ft/s}) = \text{Flow (gpm)} / 2.45 \text{ ID}^2$ (inches) where ID = the pipe's internal diameter $5 \text{ fps} = x/2.45 (1\frac{1}{4}^2) = 19.14 \text{ gpm or } 0.04 \text{ cfs}$ $X = 27 \text{ gpm}/2.45(1\frac{1}{4}^2) = 7 \text{ fps}$

Conclusion: It appears that a diversion rate of 0.06 cfs is most likely diverted under this permit. While 0.06 cfs put it outside of the industry standard of 5fps, it is not far off. I recommend that this license be issued with 0.04 cfs for domestic use and 0.06 cfs for irrigation purposes with a maximum diversion rate of 0.06 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 2.5 \times 4 = 10 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.06 \times 294 \times 1.9835 = 35 \text{ AF}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 10 \text{ AFA}$$

2. Volume Calculations for Other Uses: Domestic use, in-house only = 0.6 AF. The shop is plumbed as well as the home with a kitchenette and bathroom. The Haas' lived in the shop while the house was being built. There is no one living in the shop any more so no additional water is necessary for the family of 4 using water in a standard matter.

Conclusion: The total volume for the license is 10.6 AFA. 10 AFA for irrigating 2.5 acres and 0.6 AF for in-house, domestic uses.

G. NARRATIVE/REMARKS/COMMENTS

The home is heated using a recirculation system where water is diverted one time and enters into a closed loop system (Claudia King at Smart Solutions provided information). The heating system appears to be part of a standard domestic use. Special considerations on the license will not apply for the heating system.

The water system consists of a 10 hp pump that provides water to two storage tanks. Once pumped, the water is split into an underground 2100 gallon storage tank and a 2500 above-ground storage tank. There are 3 hydrants throughout the property and the irrigated POU has an underground sprinkler system that have PGP Hunter sprinklers. There are 9 separate stations that contain 20 heads for 8 stations and 8 heads for 1 station. The shop is plumbed but does not add any additional volume to this license. The heating system in connection with the water system is a closed loop and doesn't divert any additional water. I found that 2.5 acres are irrigated although the permit holder told me that 3.5 acres can be irrigated. I believe that 2.5 acres have been irrigated within the development period but the extra acre may contain sprinklers but have not been used.

This permit is within the Lindsay Creek GWMA and has met the requirements as conditioned on the permit.

POU/PD and Legal Description Discrepancy

Note that the PLS section line appears to be shifted 40 feet to the west on the aerial imagery. The entire POU and the PD should all be located within the SESE of Section 3, as permitted. I have shifted the POU and PD shapes so they don't go into the neighbors property in the SWSW of Section 2. For a precise location of the PD please see the GPS coordinates.

PD and Well Construction Standards

The well does not comply with well construction standards as the well head is not above the ground 12". I have sent a photo of the PD to ground protection folks in the compliance bureau and will let them follow up.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
DOMESTIC	01/01 to 12/31	0.040 CFS	0.6 AFA
IRRIGATION	02/15 to 11/30	0.060 CFS	10 AFA
<u>Totals:</u>		0.06 CFS	10.60 AFA

2. Recommended Amendments

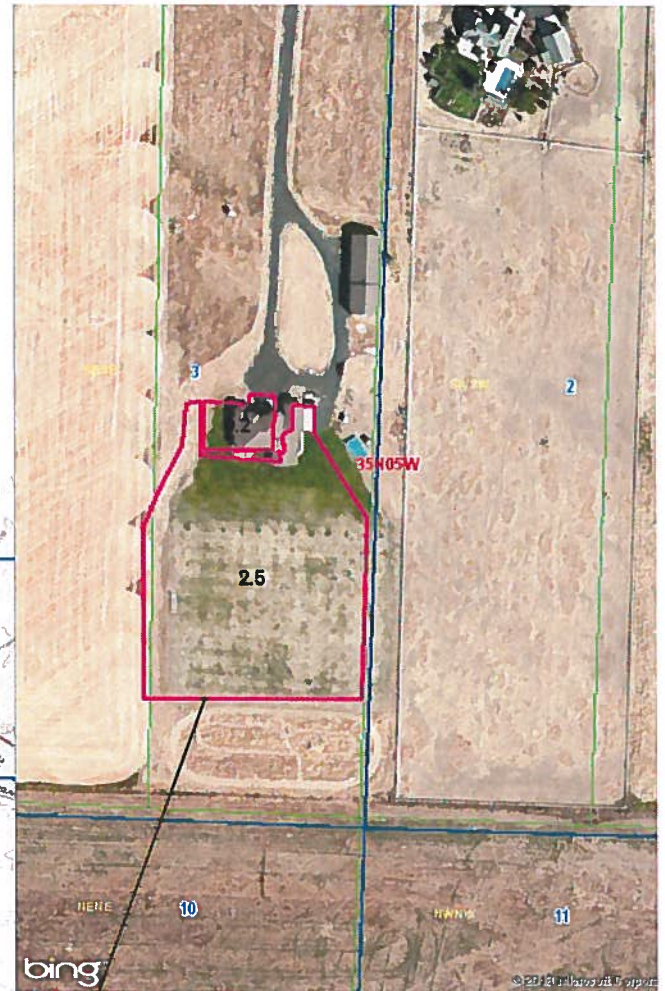
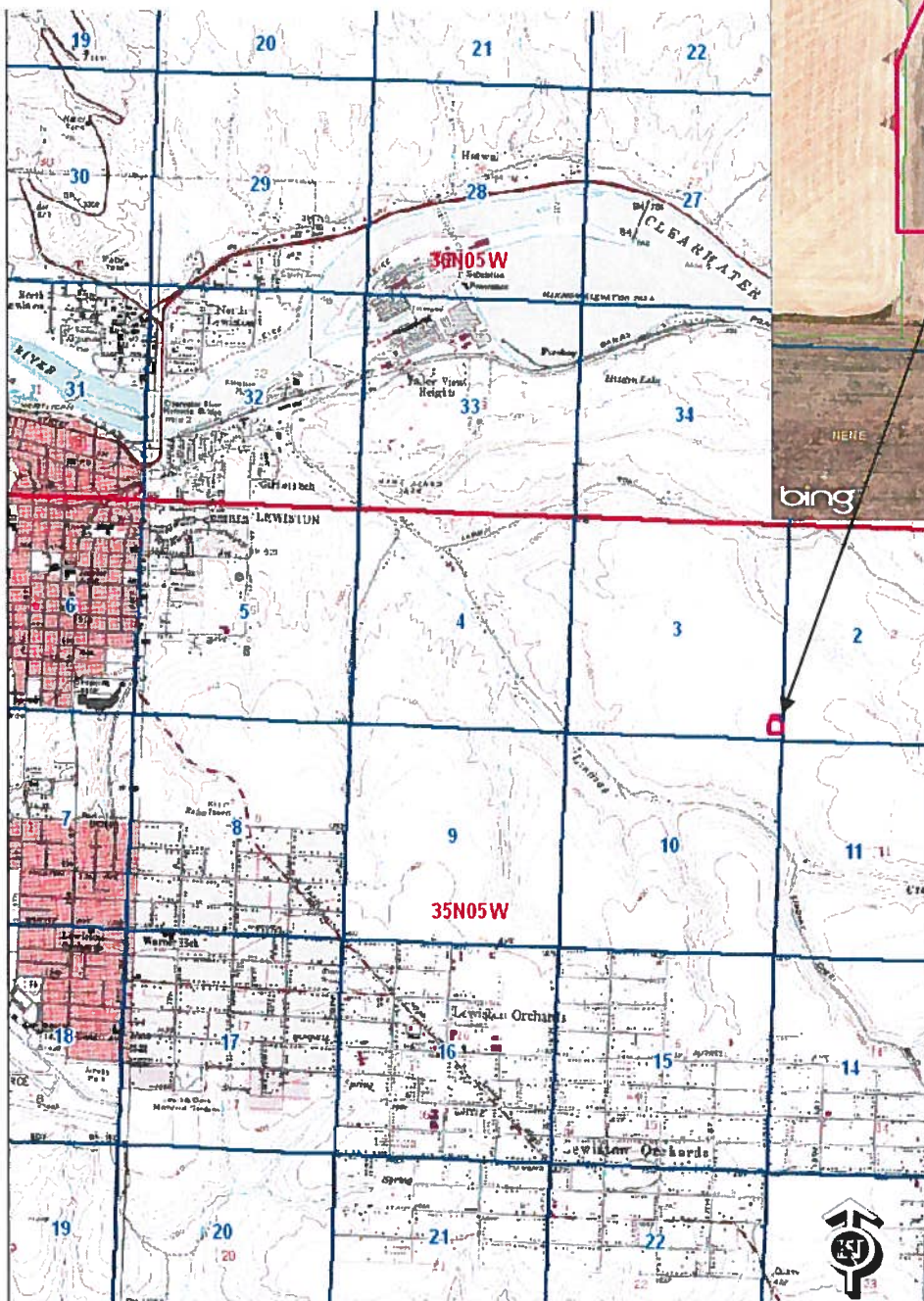
☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name Cherie Palmer Date 2/4/13

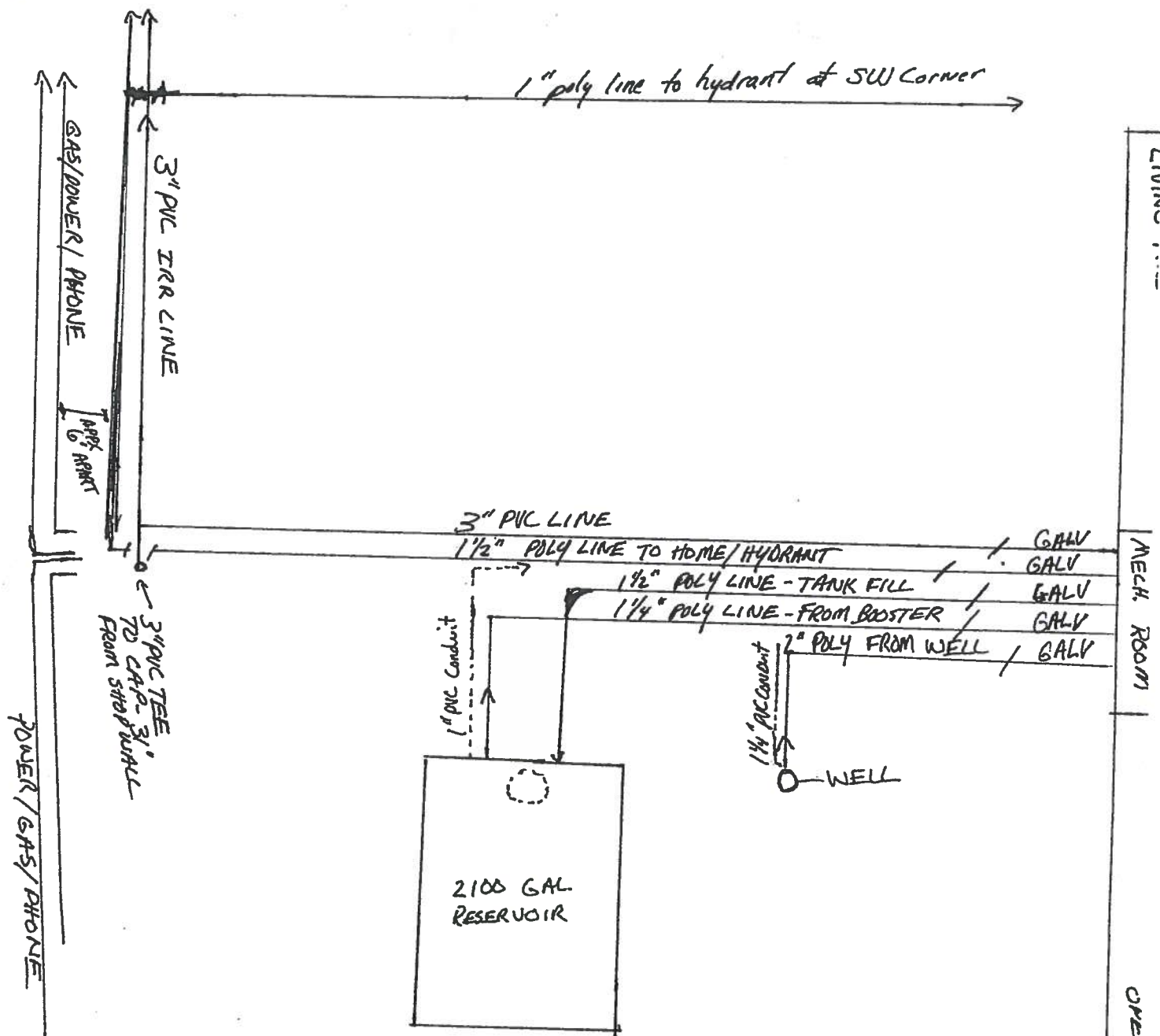
Reviewer _____ Date _____



24th, 2004

OUTSIDE DITCH LINES

Hunter PGP



NOTES

- 1) DITCH TO MECHANICAL ROOM ALSO INCLUDES
 - a) 2- 2" elec conduits
 - b) 2" Nat. Gas LINE
 - c) Phone wire
- 2) 3" HAS TEE APPX 31' OUT FROM SHOP WALL

The system was modified after this drawing was made but is still close to the current system. The second storage tank is absent.



GPS 46.400625, -116.938645



Photo facing north
Storage tank and
well are located
to the east of
the shop

2500 storage tank



irrigation line
and booster pump



Heating
System





Pressure tank
for irrigation
purposes

← Irrigation line to
booster pump





← home

Looking South to
the back yard/
Irrigated area



Front of the
house, looking
South-westerly

Domestic Dove

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT1. WELL TAG NO. D 00 39660
DRILLING PERMIT NO. 826161
Water Right or Injection Well No. _____

2. OWNER:

Name GARY HAAS
Address 6604 Cougar Ridge Dr.
City Lewiston State ID Zip 83501

3. LOCATION OF WELL by legal description:

You must provide address or Lot, Blk, Sub. or Directions to well.

Twp. 35 North ☒ or South ☐
Rge. 6 East ☐ or West ☒
Sec. 3 1/4 SE 1/4 SE 1/4
Gov't Lot _____ County Nezperce
Lat: _____ Long: _____
Address of Well Site 24056 LAPWAI Rd
(Give at least name of road - Distance to Road or Landmark)
City Lewiston
Lt. _____ Blk. _____ Sub. Name _____

4. USE:

☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____5. TYPE OF WORK check all that apply (Replacement etc.)
☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD:

☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

Seal Material	From	To	Weight / Volume	Seal Placement Method
<u>Bentonite</u>	<u>0</u>	<u>20</u>	<u>456#</u>	<u>Top Pour</u>

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s) _____
Was drive shoe seal tested? ☐ Y ☒ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
<u>10</u>	<u>+2</u>	<u>-20</u>	<u>250</u>	<u>Steel</u>	☒	☐	☒	☐
<u>8</u>	<u>+2</u>	<u>-458</u>	<u>250</u>	<u>Steel</u>	☒	☐	☒	☐
<u>6</u>	<u>-440</u>	<u>-980</u>	<u>250</u>	<u>Steel</u>	☐	☒	☒	☐

Length of Headpipe _____ Length of Tailpipe _____
Packer ☒ Y ☐ N Type K-Packer - Neoprene

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method torch
Screen Type & Method of Installation _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
<u>-920</u>	<u>-980</u>	<u>4x3</u>	<u>80</u>	<u>6"</u>	<u>Steel</u>	☒	☒
						☐	☐
						☐	☐

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

522 ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: _____
Top of casing
25N 5W 3

12. WELL TESTS:

☐ Pump ☐ Bailor ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
<u>200</u>			<u>2.00</u>

Water Temp. 56° Bottom hole temp. _____Water Quality test or comments: GoodDepth first Water Encounter 955

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
<u>12</u>	<u>0</u>	<u>12</u>	<u>Sandy loam</u>		
<u>12</u>	<u>12</u>	<u>19</u>	<u>Hard Gray Bslt</u>		
<u>10</u>	<u>19</u>	<u>33</u>	<u>"</u>		
<u>10</u>	<u>33</u>	<u>48</u>	<u>Brn. withd Bslt</u>		
<u>10</u>	<u>48</u>	<u>78</u>	<u>Hard Gray Bslt</u>		
<u>10</u>	<u>78</u>	<u>81</u>	<u>Soft. Blk Bslt</u>		
<u>10</u>	<u>81</u>	<u>127</u>	<u>Hard Blk Bslt</u>		
<u>10</u>	<u>127</u>	<u>142</u>	<u>Soft Brn withd Bslt</u>		
<u>10</u>	<u>142</u>	<u>201</u>	<u>Brn. Bslt</u>		
<u>10</u>	<u>201</u>	<u>224</u>	<u>Soft Black Bslt</u>		
<u>10</u>	<u>224</u>	<u>271</u>	<u>Soft Black Bslt Shale</u>		
<u>10</u>	<u>271</u>	<u>321</u>	<u>Green Shale</u>		
<u>10</u>	<u>321</u>	<u>347</u>	<u>Brn TAN Shale</u>		
<u>10</u>	<u>347</u>	<u>390</u>	<u>Brn Sandy Clay</u>		
<u>10</u>	<u>390</u>	<u>426</u>	<u>Sandstone Clay</u>		
<u>10</u>	<u>426</u>	<u>440</u>	<u>Gray Shale</u>		
<u>10</u>	<u>440</u>	<u>458</u>	<u>Hard Gray Bslt</u>		
<u>8</u>	<u>458</u>	<u>548</u>	<u>"</u>		
<u>8</u>	<u>548</u>	<u>688</u>	<u>Brn withd Bslt</u>		
<u>8</u>	<u>688</u>	<u>724</u>	<u>Green Shale</u>		
<u>8</u>	<u>724</u>	<u>725</u>	<u>Gray Bslt</u>		
<u>8</u>	<u>725</u>	<u>923</u>	<u>HARD Gray Bslt</u>		
<u>8</u>	<u>923</u>	<u>935</u>	<u>Med Hd Bslt</u>		
<u>8</u>	<u>935</u>	<u>971</u>	<u>Soft withd Bslt</u>		

RECEIVED

JAN -4 2005

11-15-04

Completed Depth 980 (Measurable)Date: Started 11-15-04 Completed 12-4-04

14. DRILLER'S CERTIFICATION

I/we certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name WHELAN DRILLING Firm No. 124Principal Driller Jim J. Whelan Date 12-31-04and Driller or Operator II Bob Smith Date 1-1-05

Operator I _____ Date _____

Principal Driller and Rig Operator Required.
Operator I must have signature of Driller/Operator II.

FORWARD WHITE COPY TO WATER RESOURCES

Palmer, Cherie

From: Palmer, Cherie
Sent: Monday, February 04, 2013 2:51 PM
To: Whitney, Rob
Subject: Well construction D0039660

Hi Rob,

I completed a field examination for 85-15640 and see that the well is out of compliance. There is practically no clearance between the ground and the top of the well head. Here is a picture:



Also I attached the well log for your reference. Anyways, I was told by Craig that I should forward this information to you. Please let me know if you need anything else from me. Thanks!



well drillers
report.TIF

Cherie