

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-9468

Exam Date: 1/15/2015

1. Current Owner: SALVATION ARMY KROC CENTER
BEN MARKHAM
1765 W GOLF COURSE RD
COEUR D ALENE ID 83815
(208)763-1865
2. Accompanied by: Michael Benson
Phone No: 208-763-0615
Address: Same as above
Relationship to Permit Holder: Systems Manager

3. SOURCE TRIBUTARY
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 SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER NE1/4SE1/4 Sec. 3, Twp 50N, Rge 04W, B.M. KOOTENAI County

GROUND WATER NE1/4SE1/4 Sec. 3, Twp 50N, Rge 04W, B.M. KOOTENAI County

Method of Determination: GPS and Maps

2.

PLACE OF USE: HEATING

Twp Rge Sec	NE				NW				SW				SE				Totals
50N 04W 3	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
													X				

PLACE OF USE: COOLING

Twp Rge Sec	NE				NW				SW				SE				Totals
50N 04W 3	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
													X				

Method of Determination:

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.

<u>Well or Diversion</u> <u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge</u> <u>Size</u>
D0054459(A0003268)	GOULDS	50			
D0054458(A0003267)	GOULDS	75			

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

<u>Measurement</u> <u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
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N/A

2. Measurements: N/A

E. FLOW CALCULATIONS

Measured Method: MEASUREMENT DATA PROVIDED BY NORTHWEST MECHANICAL ENGINEERING. SEE ATTACHED SHEET WITH PUMP SCHEDULE. WP-1 MAX PUMPING CAPACITY AT 320GPM, WP-2 MAX PUMPING CAPACITY AT 480GPM. THEORETICAL CALCULATIONS WERE REQUIRED FOR THIS FIELD EXAM BECAUSE THE CONFIGURATION OF PIPING IN THE SALVATION ARMY KROC CENTER DOES NOT ALLOW ADEQUATE SPACE TO INSTALL FUJI FLOWMETER.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} =$$

2. Volume Calculations for Other Uses:

$$\text{HEATING} = 1.5\text{CFS} \times 200 \text{ DAYS} \times (18\text{HOURS}/24\text{HOURS}) \times 0.75 \times 1.9835 = 476\text{AF}$$

$$\text{COOLING} = 1.5\text{CFS} \times 165 \text{ DAYS} \times (18\text{HOURS}/24\text{HOURS}) \times 0.75 \times 1.9835 = 393\text{AF}$$

TOAL OF 869 AF

G. NARRATIVE/REMARKS/COMMENTS

HEATING AND COOLING CLOSED LOOP SYSTEM. TWO SUPPLY WELLS D0054459 AND D0054458. INJECTION WELL D0054460. MAX CAPACITY IS 800GPM.

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>
HEATING	01/01 to 12/31	1.600 CFS	476.00 AF
COOLING	01/01 to 12/31	1.600 CFS	393.00 AF
<u>Totals:</u>		1.600 CFS	869.00 AF

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 Adam Frederick Date 1-22-2015

Reviewer Eric Davis Date 1-22-2015

State of Idaho
Department of Water Resources
Water Right License
95-9468

04W



-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters

0 0.0275 0.055 0.11 Miles



WELL DRILLER'S REPORT

Office Use Only			
Inspected by			
Twp	Rge	Sec	
1/4	1/4	1/4	
Lat	:	:	Long:

1. WELL TAG NO. D0054460
Drilling Permit No: 850843
Other IDWR No. 95-9468

2. OWNER SALVATION ARMY KROC CENTER Well Number: 1403

Name SALVATION ARMY KROC CENTER
Address 401 1/2 SHERMAN AVE. STE. 207

City COEUR D'ALENE State ID Zip 83814

3. LOCATION OF WELL by legal description

sketch map location must agree with written location

N	
W	E
S	

Twp. 50N ☒ North or ☐ South
Rge. 04W ☐ East or ☒ West
Sec. 3 NE 1/4 NE 1/4 SE 1/4
Gov't Lot _____ County KOOTENAI
Latitude: N47:42:345 Longitude: W116:48:690
Address of Well Site RAMSEY RD
City COEUR D'ALENE

(Give at least name of road + Distance to Road or Landmark)

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/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	
BENTONITE	0	18	600 LBS	TEMP / OVERBOR

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 260

Was drive shoe seal tested? ☐ Y ☒ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
12	+3	300	.250	STEEL	☒	☐	☒	☐

Length of Headpipe 5 Length of Tailpipe _____

9. PERFORATIONS/SCREENS

☐ Perforations Method _____
☒ Screens Screen Type JOHNSON SS

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
260	300	80	2	10	SS	☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

138 ft. below ground Artesian pressure _____ lb.
Depth flow encountered 280 ft. Describe access port or
control devices: _____

11. WELL TESTS:

☐ Bailor ☒ Air ☐ Flowing Artesian
Yield gal./min. Drawdown Pumping Level Time

Water Temp. COLD Bottom Hole Temp COLD

Water Quality test or comments: CLEAR

Depth first Water encountered 138

12. LITHOLOGIC LOG:(Describe repairs or abandonment)

Bore Diam	From	To	Remarks: Lithology, Water Quality, Temperature	Water	
18	0	18	Soil, Sand & Gravels	☐	☒
14	18	60	Soil, Sand & Gravels	☐	☒
14	60	138	Sand & Gravels	☐	☒
14	138	192	Sand & Gravels	☒	☐
14	192	255	Sand	☒	☐
14	255	277	Sand & Pea Gravel	☒	☐
14	277	300	Sand & Gravel	☒	☐



RECEIVED

APR 3 2008

IDWR/North

Completed Depth 300 (Measurable)
Date: Started 3/17/2008 Completed 3/24/2008

13. DRILLER'S CERTIFICATION

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

Firm Name H2O Well Service Inc. Firm No. 448
Firm Official [Signature] Date 3-26-08
and
Supervisor or Operator [Signature] Date 3/24/2008
TODD MORGAN (Sign Once if Firm Official and Operator)

50N 04W 3.

WELL DRILLER'S REPORT

Office Use Only			
Inspected by			
Twp	Rge	Sec	
1/4	1/4	1/4	
Lat: : : :	Long: : : :		

1. WELL TAG NO. D0054459

Drilling Permit No: 850842

Other IDWR No. 95-9468

2. OWNER

Name SALVATION ARMY KROC CTR

Well Number:

1401

Address 401 1/2 SHERMAN AVE. STE.207

City CDA State ID Zip 83814

3. LOCATION OF WELL by legal description

sketch map location must agree with written location

N W E S	Twp. 50N ☒ North or ☐ South	
	Rge. 04W ☐ East or ☒ West	
	Sec. 3 NE 1/4 NE 1/4 SE 1/4	
Gov't Lot		County KOOTENAI
Latitude: 47:42:294		Longitude: 116:48:696

Address of Well Site RAMSEY RD.

City COEUR D' ALENE

(Give at least name of road + Distance to Road or Landmark)

Lt. Blk. Sub. Name

4. USE:

- ☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☒ Other Heating/Cooling

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/FILTER PACK		AMOUNT		METHOD
Material	From	To	Sacks or Pounds	
BENTONITE	0	18	1000 LBS	Temp./Overbore

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

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
8	+3	279	.250	STEEL	☒	☐	☒	☐

Length of Headpipe 6 Length of Tailpipe

9. PERFORATIONS/SCREENS

- ☐ Perforations Method

- ☒ Screens Screen Type JOHNSON SS

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
279	299	.80	2	7	SS	☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

140 ft. below ground Artesian pressure lb.

Depth flow encountered 280 ft. Describe access port or control devices:

11. WELL TESTS:

- ☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
300+			4 HR

Water Temp. COLD Bottom Hole Temp. COLD

Water Quality test or comments: CLEAR

Depth first Water encountered 140

12. LITHOLOGIC LOG:(Describe repairs or abandonment)

Bore Diam	From	To	Remarks: Lithology, Water Quality, Temperature	Water
14	0	18	Sand & Gravels	☐ Y ☒ N
10	18	31	Sand & Gravels	☐ Y ☒ N
10	31	126	Sand	☐ Y ☒ N
10	126	140	Sand & Gravels	☐ Y ☒ N
10	140	187	Sand & Gravels	☒ Y ☐ N
10	187	210	Sand w/ Clay	☒ Y ☐ N
10	210	280	Sands w/ Pea Gravel	☒ Y ☐ N
10	280	299	Sand & Gravels	☒ Y ☐ N

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APR - 3 2008

IDWR/North

Completed Depth 299 (Measurable)
 Date: Started 3/5/2008 Completed 3/10/2008

13. DRILLER'S CERTIFICATION

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

Firm Name H2O WellService, Inc. Firm No. 448

Firm Official *Tom Rube* Date 3-17-08

and
 Supervisor or Operator *TODD MORGAN* Date 3/11/2008
 MORGAN, TODD (Sign Once If Firm Official and Operator)

50N 04W 3

WELL DRILLER'S REPORT

Office Use Only			
Inspected by			
Twp	Rge	Sec	
1/4	1/4	1/4	
Lat:	Long		

1. WELL TAG NO. D0054458

Drilling Permit No: 850838
Other IDWR No. 95-9468

2. OWNER

Well Number:

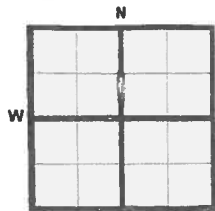
Name SALVATION ARMY KROC CENTER 1402

Address 401 1/2 SHERMAN AVE. STE.207

City COEUR D'ALENE State ID Zip 83814

3. LOCATION OF WELL by legal description

sketch map location must agree with written location



Twp. 50N ☒ North or ☐ South
Rge. 04W ☐ East or ☒ West
Sec. 3 NE 1/4 NE 1/4 SE 1/4

Gov't Lot _____ County KOOTENAI
Latitude: N47:42:298 Longitude: W116:48:695

Address of Well Site RAMSEY RD
City COEUR D'ALENE

(Give at least name of road + Distance to Road or Landmark)

Lt. _____ Blk. _____ Sub. Name _____

4. USE:

☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☒ Other Heating/Cooling

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/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	
BENTONITE	0	18	900 lbs	TEMP - OVERBOR

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s) RB

Was drive shoe seal tested? ☐ Y ☒ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
10	+2	302	.250	STEEL	☒	☐	☒	☐

Length of Headpipe 5 Length of Tailpipe _____

9. PERFORATIONS/SCREENS

☐ Perforations Method _____
☒ Screens Screen Type JOHNSON SS

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
282	302	80	2	9	SS	☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

138 ft. below ground Artesian pressure _____ lb.

Depth flow encountered 280 ft. Describe access port or control devices: _____

11. WELL TESTS:

☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
300+			4.5HRS

Water Temp. COLD Bottom Hole Temp COLD

Water Quality test or comments: CLEAR

Depth first Water encountered 138

12. LITHOLOGIC LOG:(Describe repairs or abandonment)

				Water	
Bore Diam	From	To	Remarks: Lithology, Water Quality, Temperature	Y	N
18	0	18	Sands & Gravels	☐	☒
12	18	31	Sands & Gravels	☐	☐
12	31	126	Sand, Gravel, Boulders	☐	☒
12	126	140	Sands & Gravels	☒	☐
12	140	187	Sands & Gravels	☒	☐
12	187	210	Sand w/ Clay	☒	☐
12	210	280	Sands w/ Pea Gravel	☒	☐
12	280	302	Sands & Gravels	☒	☐

Drilled
ENTERED
4/11/08

ENTERED
4/10/08

RECEIVED

APR - 3 2008

IDWR/North

Completed Depth 302 (Measurable)
Date: Started 3/12/2008 Completed 3/15/2008

13. DRILLER'S CERTIFICATION

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

Firm Name H2O Well Service, Inc. Firm No. 448

Firm Official [Signature] Date 3-14-08

and Supervisor or Operator [Signature] Date 3/15/08
TODD MORGAN (Sign Once if Firm Official and Operator)

SON 04W 3:

PUMP SCHEDULE FOR WATER RIGHT 95-9466

MG100.pdf - Adobe Reader

File Edit View Window Help

1 / 1 100% Tools Sign Comment

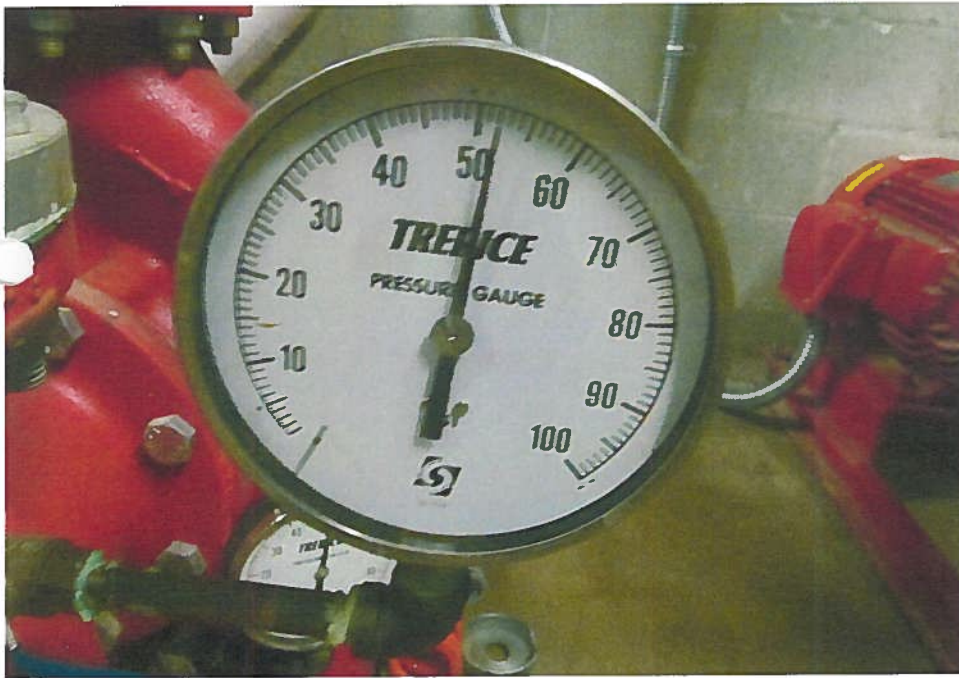
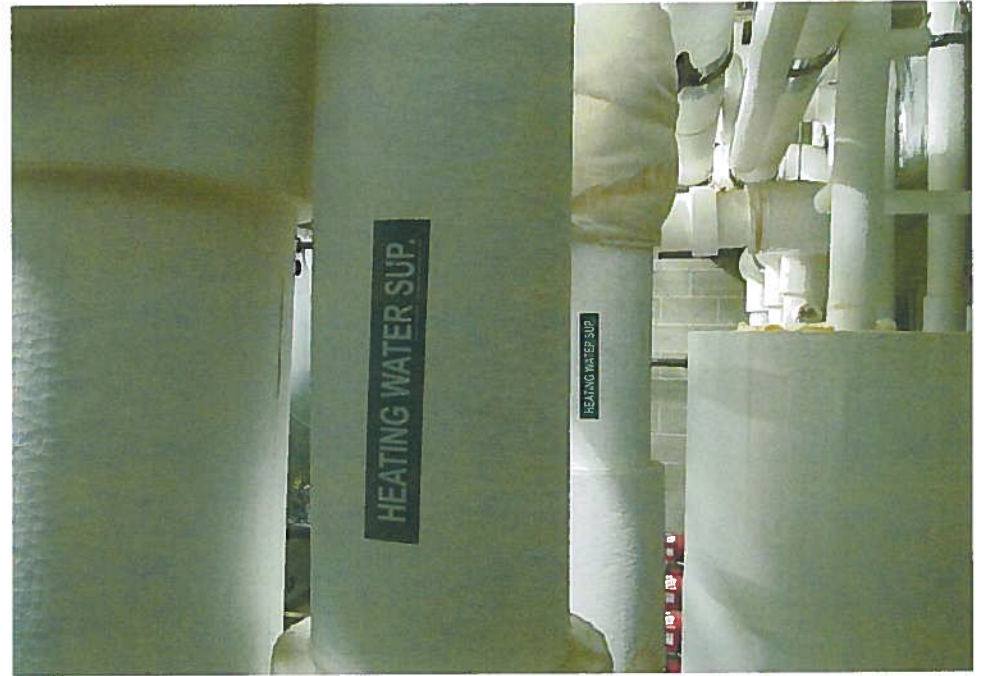
PUMP SCHEDULE		
DESIGNATION	WP-1	WP-2
MANUFACTURER	GOULDS PUMPS	GOULDS PUMPS
MODEL NUMBER	SUBMERSIBLE TURBINE-7CLC	SUBMERSIBLE TURBINE-9WAHC
SERVICE	WELL WATER	WELL WATER
LOCATION	ON SITE	ON SITE
TYPE	WELL PUMP	WELL PUMP
GPM	320	480
DESIGN HEAD (FT.)	386	407
SIZE (IN.)	5 STAGES	3 STAGES
IMPELLER DIA (IN.)	4.8125	6.3125
MIN. EFFICIENCY (%)	78.8	81.6
SHUT-OFF HEAD (FT.)	564	492
MOTOR SIZE (HP)	50	75
MOTOR SPEED (RPM)	3450	3450
VOLTS/PHASE	460/3	460/3
NOTES	1,2	1,2

1. SELECTION BASED ON 50°F WATER
2. HIGH EFFICIENCY MOTOR.

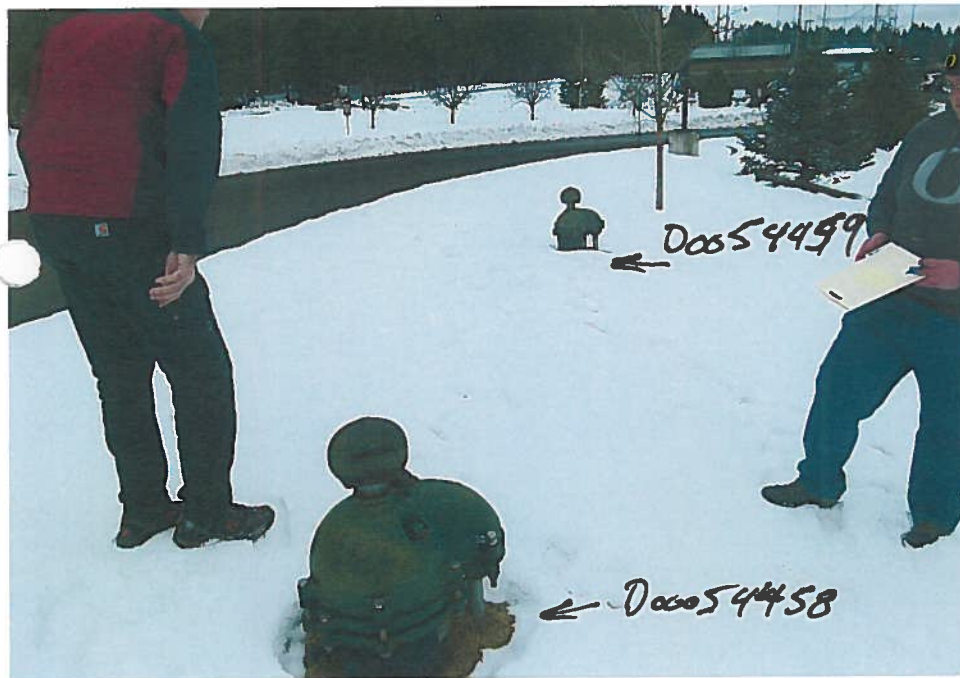
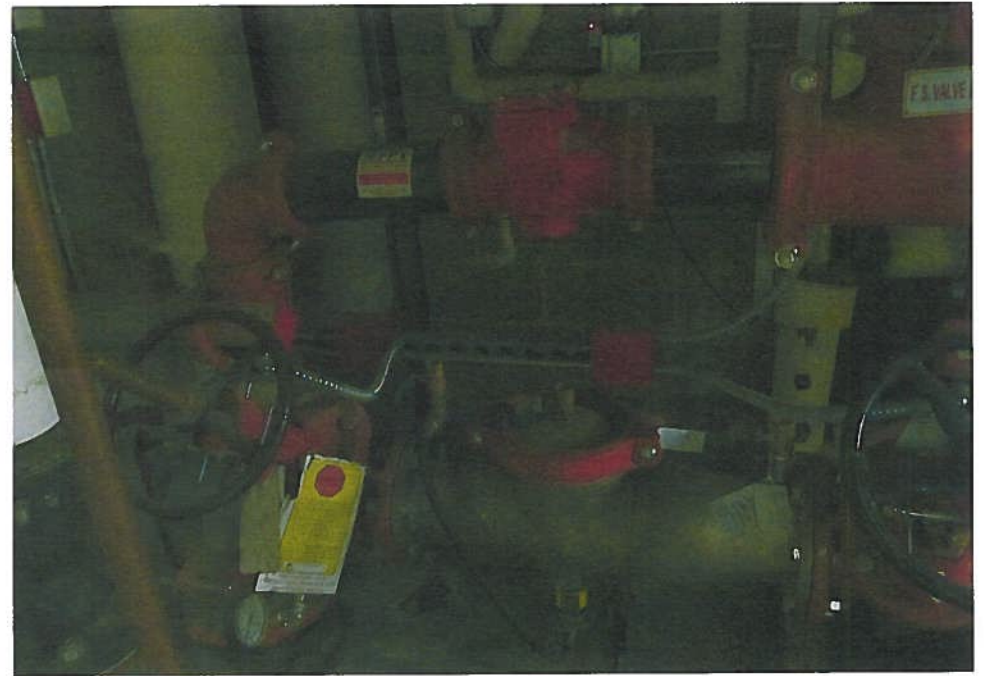
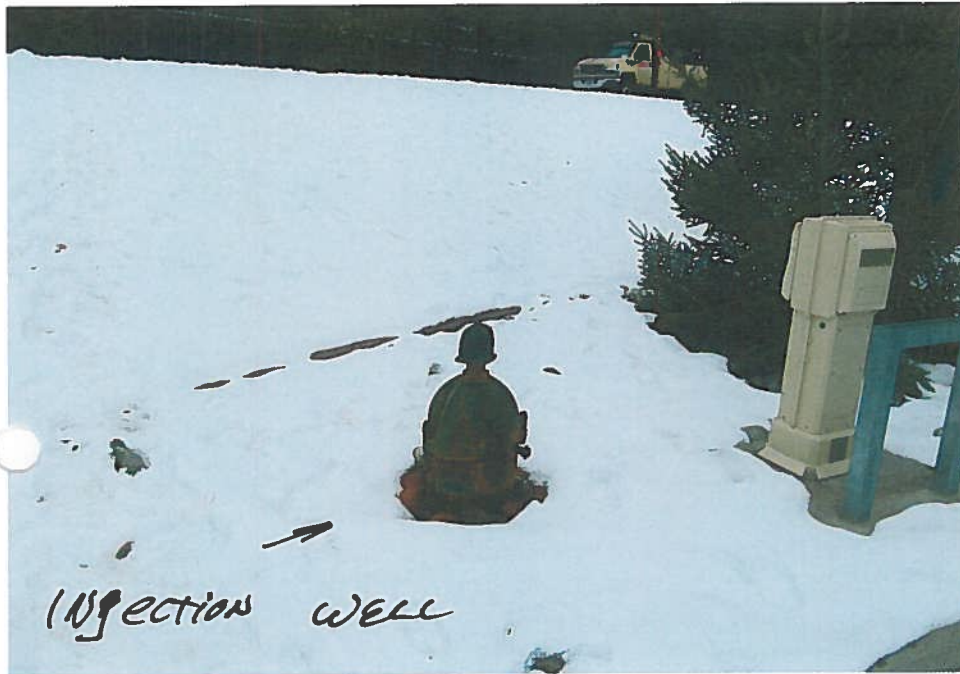
41.99 x 29.99 in

PROVIDED BY MICHAEL BENSON, SYSTEMS MANAGER FOR SALVATION ARMY KROC CENTER

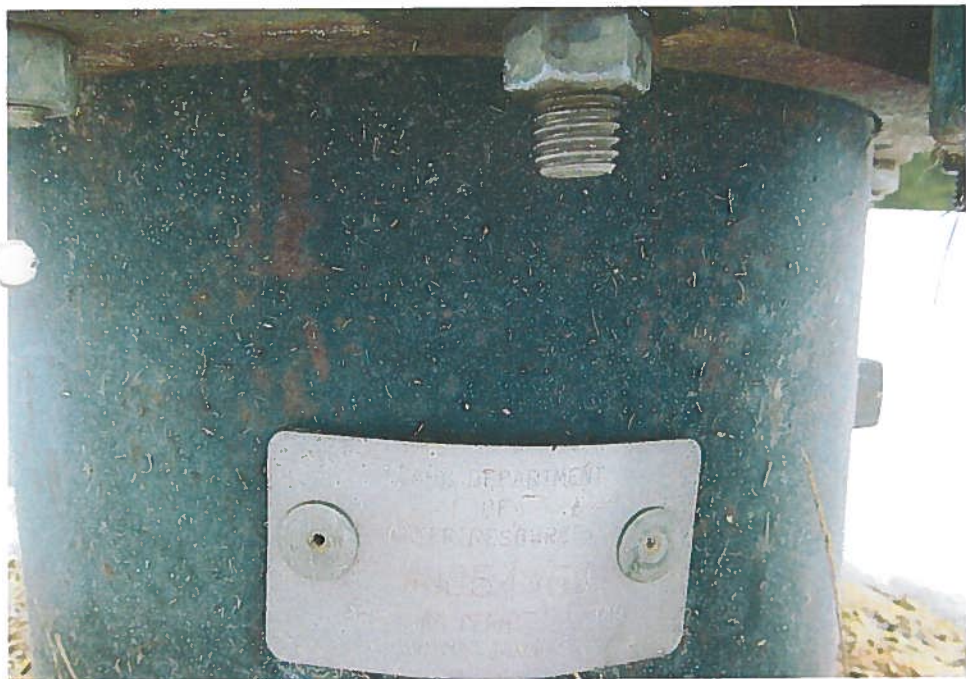
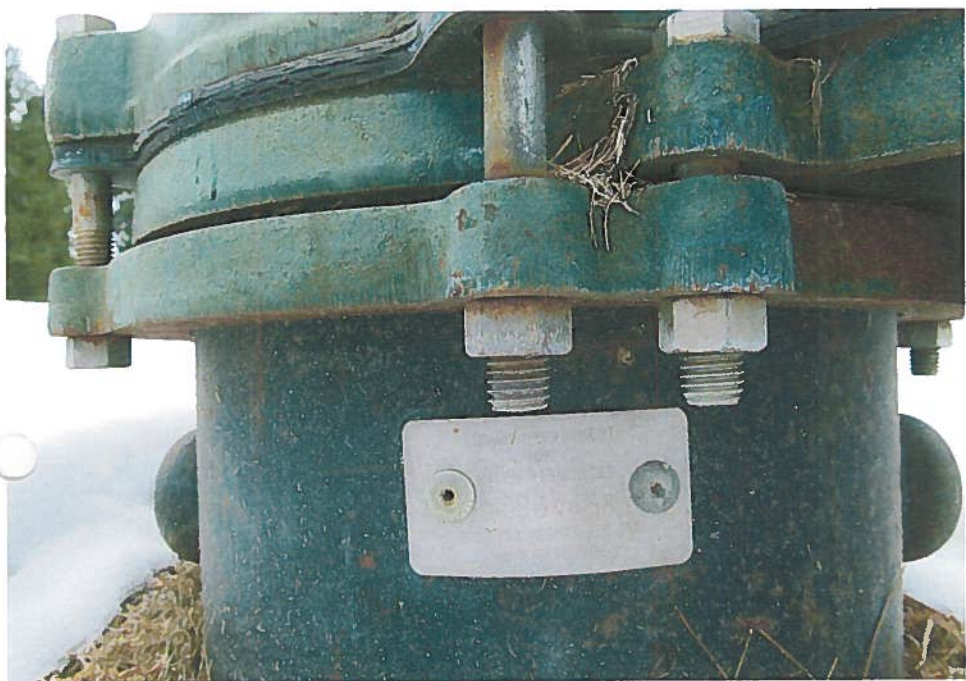




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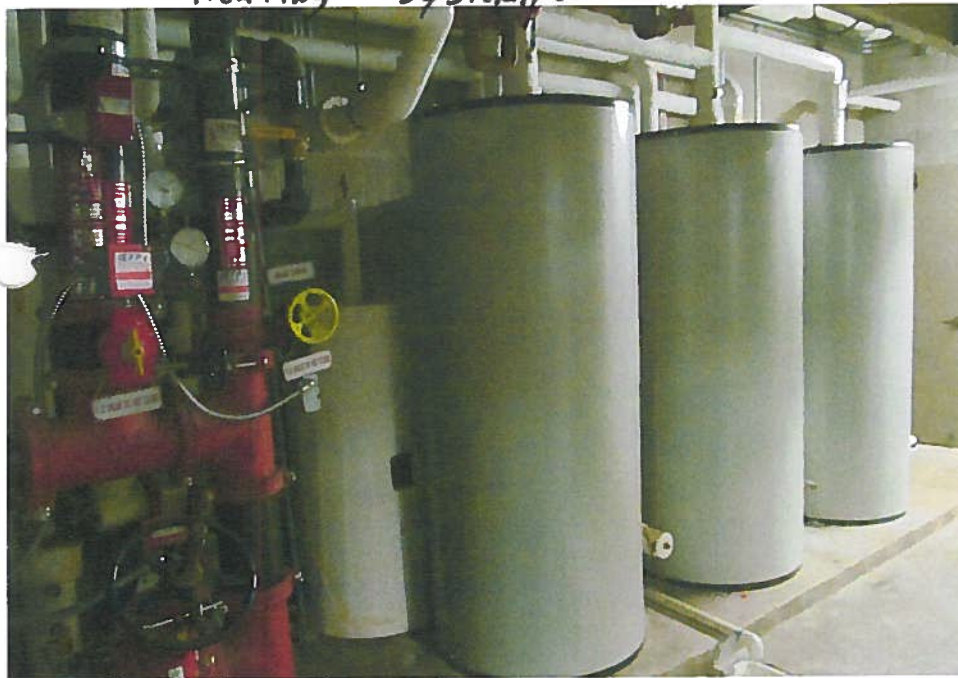
95-9429



95-9468



Heating system



OK- 9418