

[illegible]

Method of Determination: Garmin GPS Map 76S, ArcMap 2011 and esri 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.

<u>Well or Diversion 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 Size</u>
Well 1 (E0005428)	Berkeley	10 Hp 3-phase	unknown		2 ½ inch (primary well)
Well 2 (E0005584)	Gould	7.5 Hp	unknown		2 inch (back-up well)

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

D. FLOW MEASUREMENTS

1.

<u>Measurement 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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No physical measurement was collected at the time of the field examination, due to the storage tanks having a 2 – 3 day supply and the system being on a Demand System.

A physical measurement was collected for well 2 during the field examination for water right 86-12001 = 50 gpm (0.11 cfs)

Domestic: Exhibit 12 Maximum Instantaneous Water Requirement for Domestic Internal Use for 45 homes = 0.32 cfs

IDEQ 6/23/2009 Sanitary Survey: well 1 = 100 – 120 gpm (0.22 cfs – 0.26 cfs; well 2 = 50 gpm (0.11 cfs)

Well #1 + well #2 = 0.33 cfs thru 0.37 cfs maximum capacity

Well Logs: well #1: 100 gpm (0.22 cfs), well #2: 50 gpm (0.11 cfs) = 0.33 cfs

Pipe Conversion for 4 inch PVC main: 0.44 cfs

Irrigation: (average size lots 45 ft X 70 ft X 45 lots = 141750) – (average mobile home 14 ft X 70 ft X 45 homes) = 97650/43560 = **2.24 acres remaining that is irrigated.**

2.24 acres X 0.03 cfs = 0.07 cfs Irrigation

RECOMMEND:

Domestic 45 homes internal use only : 0.20 cfs (as permitted)

Irrigation 2.24 acres; 0.07 cfs

Total Diversion Rate: 0.20 cfs (as permitted)

2. Measurements: None

E. FLOW CALCULATIONS

Measured Method: None

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (2.24 \text{ Acres Irrigated}) \times (4.0 \text{ Irrigation Requirement}) = 8.96 = 8.7 \text{ AF}$$

$$V_{D.R.} = [0.07 \text{ Diversion Rate (cfs)}] \times (289 \text{ Days in Irrigation season}) \times 1.9835 = 40.1 \text{ AF}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 8.7 \text{ AF}$$

2. Volume Calculations for Other Uses: IDWR Domestic internal use only, for 45 homes = $45 \times 0.6 = 27.0 \text{ AF}$

RECOMMEND:

Irrigation 8.7 AF

Domestic 45 homes, internal use only 27.0 AF

Total Annual Volume: 35.7 AF

G. NARRATIVE/REMARKS/COMMENTS

At the time of the 8/25/2011 field examination for water right 86-7304 (for Phase 1), it became evident that water right 85-7668 was for the same mobile home park but assigned to the wrong basin. So for this reason water right 85-7668 was renumbered to 86-12001 (for Phase 2).

At the time of the field examination, the pumps were not running since they are a Demand System, and have a 2 - 3 day supply in the storage tanks, controlled by a float meter. For this reason, no physical measurement was collected, and notes from DEQs sanitary survey, well driller's reports, etc were used to make measurement calculations.

Well 1 (E0005428, tag inside the pumphouse) is the primary well, located northwest of the entrance into the mobile home park at the base of the hill. Well 1 was drilled 7/2/1976 by Detray Drilling No. 150, is 284 ft deep, 10 inch casing, unknown static, 10 Hp Berkeley 3-phase submersible, 2 1/2 inch discharge, to a buried 4 inch PVC main up the middle of Phase 1 of the mobile home park, to (2) concrete storage tanks at the top of the hill in the NWNE quarter-quarter. There are 3/4 inch PVC lines that go to the individual mobile home lots.

Both of the storage tanks are partially buried. One is 24,000 gallons (constructed in 1983), and the other is 12,000 gallons (constructed in 1985). Both are interconnected and controlled by a float meter.

Well 2 (E0005584, tag inside the pumphouse) located slightly southwest of Phase 2 at the bottom of the hill, is the back up well. Well 2 was drilled 4/30/1993 by Detray Drilling No. 150, is 225 ft deep, 8 inch casing, 83 ft static, 7.5 Hp Goulds submersible, with 2 inch discharge through a Sensus flowmeter serial number 60477823 (2 inch meter). The system was designed to run at a minimum pressure of 32 psi and maximum pressure of 55 psi. From well 2, the 2 inch discharge converts to 4 inch buried PVC up the west side of the boundary of Phase 2 of the mobile home park, then turns to the east where it ties into the distribution system. Phase 2 has 2-inch main throughout the system, with 3/4 inch PVC going to each individual mobile home lot. Phase 2 consists of 20 lots, and is covered under water right 86-12001.

There are (2) 20,000 gallon storage tanks further north which are for surface water, covered under water right 86-4010 Hatwai Utilities Assn., with the source: Clearwater River. There is a main that runs along the outside of Phase 1, which is used for some irrigation/fire protection purposes, but not the mobile home lots.

The Eaton Mobile Home Park is regulated by IDEQ, and assigned the Public Water System Number (PWS) 2350008. The entire system is not individually metered, but instead the water is included with their monthly rent. Updated flow meters were waived by IDEQ until the next time they are required to conduct extensive work to the wells.

Have conditions of permit approval been met? X Yes No

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	02/15 to 11/30	0.070 CFS	8.70 AF
DOMESTIC	01/01 to 12/31	0.200 CFS	27.00 AF
	<u>Totals:</u>	0.200 CFS	35.70 AF

2. Recommended Amendments

☒ _X_ Change P.D. as reflected above ☐ ___Add P.D. as reflected above ☐ ___None

☒ _X_ Change P.U. as reflected above ☐ ___Add P.U. as reflected above ☐ ___Other

I. AUTHENTICATION

Field Examiner's Name

Sandy Hemenway

Date

10/24/2013

SESW

SWSE

SESE

Eaton's Mobile Home Park PWS # ID 2350008

Owner: Arthur W. Eaton Jr.

NENW

Phase 1 86-7304
Phase 2 86-12001

(2) ground water storage tanks
partially buried
(1983) 26,000 gal.
(1985) 12,000 gal.
(measured by flow meter)

(2) 20,000 gal. surface water storage tanks
86-4010

NWNE

Phase I
86-7304
45 homes

NENE

4" PVC mains + 2" distribution

T36N R5W Sec 87

86-12001
Phase 2
20 homes

86-4010
Surface Water Main (Clearwater River)
Hatchee Utilities Assn.
-Phase 1 only

2" discharge
7.5 Hp Goulds
E0005584
50 gpm

SENW

well #2
POD
(back-up well)

SWNE

SENE

well #1
POD 80 gpm
100 gpm - 120 gpm
E0005428
10 Hp Borker
2 1/2" discharge

NESW

NWSE

NESE

NESW

(Renumbered)

WATER WELL REPORT

STATE OF WASHINGTON

Application No. _____

Permit No. _____

(1) OWNER: Name AW EATON Address _____
(2) LOCATION OF WELL: County NE3 PERCE - W 1/2 NE 1/4 Sec. 27 T. 36N. R. 5 W.M.
Bearing and distance from section or subdivision corner _____

(3) PROPOSED USE: Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) _____
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 8 1/2 inches.
Drilled 284 ft. Depth of completed well 280 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 10" Diam. from 10 ft. to 26 1/2" ft.
Threaded ☐ 8" Diam. from 12 ft. to 28 ft.
Welded ☐ 6" Diam. from 62 ft. to 210 ft.

Perforations: Yes ☐ No ☒
Type of perforator used _____
SIZE of perforations _____ in. by _____ in.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

Screens: Yes ☐ No ☒
Manufacturer's Name _____
Type _____ Model No. _____
Diam. _____ Slot size _____ from _____ ft. to _____ ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes ☒ No ☐ To what depth? 76 ft.
Material used in seal BENTONITE
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name BERKELEY
Type: SUBMERSIBLE HP 10

(8) WATER LEVELS: Land-surface elevation above mean sea level. ft.
Static level _____ ft. below top of well Date _____
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.)

(9) WELL TESTS:

Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom? _____
Yield: gal/min. with _____ ft. drawdown after _____ hrs.
" 100 " AIR TESTING "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

AIR TESTING

Date of test _____
Bailer test _____ gal/min. with _____ ft. drawdown after _____ hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water _____ Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
TOP Soil	0	9
GRAVEL + Cobble STONE	9	23
FRACTURED Brown BASALT	23	54
MED HARD BASALT	54	65
INTERBED	65	69
BLUE BASALT ROCK	69	114
FRACTURED ROCK	114	125
BLUE BASALT ROCK	125	177
INTERBEDDED YELLOW CLAY WATER	177	182
ROCK & SAND - 15 GPM SHUT OFF @ 1/6" Casing	182	210
BLUE BASALT ROCK	210	280
INTERBEDDED WATER 100 GPM	280	284

Work started _____, 19____ Completed _____, 19____

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME DETROY Drilling
(Person, firm, or corporation) (Type or print)
Address 1036-15TH ST
Eaton, WA 99103
[Signed] W. D. Dray
(Well Driller)

License No. 150 Date 7-2, 1976

well #1

WELL DRILLER'S REPORT

JAN 03 1994

This report must be filed with the Director, Department of Water Resources
within 30 days after the completion or abandonment of the well.

Department of Water Resources

1. WELL OWNER Name <u>ARTHUR EATON</u> Address <u>220-49TH ST N.</u> <u>LEWISTON, ID-83501</u> Owner's Permit No. <u>86-92-N-0054-000</u>		7. WATER LEVEL Static water level <u>83</u> feet below land surface. Flowing? ☐ Yes ☒ No G.P.M. flow _____ Artesian closed-in pressure _____ p.s.i. Controlled by: ☐ Valve ☐ Cap ☐ Plug Temperature _____ OF. Quality _____ Describe artesian or temperature zones below _____																																																																																	
2. NATURE OF WORK ☒ New well ☐ Deepened ☐ Replacement ☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)		8. WELL TEST DATA ☐ Pump ☒ Baller ☐ Air ☐ Other _____ Discharge G.P.M. <u>30 GPM</u> Pumping Level <u>79'</u> Hours Pumped <u>4 hours</u>																																																																																	
3. PROPOSED USE ☒ Domestic ☐ Irrigation ☐ Test ☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection ☐ Other _____ (specify type)		9. LITHOLOGIC LOG <u>89762</u> <table border="1"><thead><tr><th>Bore Diam.</th><th>Depth From</th><th>To</th><th>Material</th><th>Water Yes No</th></tr></thead><tbody><tr><td>10</td><td>0</td><td>10</td><td>BROKEN ROCK</td><td>✓</td></tr><tr><td>10</td><td>10</td><td>20</td><td>SOFT ROCK & GREY LAY</td><td>✓</td></tr><tr><td>10</td><td>20</td><td>40</td><td>DIRTY DARK BASALT</td><td>✓</td></tr><tr><td>10</td><td>40</td><td>47</td><td>GRAVEL CEMENTED</td><td>✓</td></tr><tr><td>10</td><td>47</td><td>50</td><td>BROWN BASALT</td><td>✓</td></tr><tr><td>8</td><td>50</td><td>92</td><td>BROWN BASALT</td><td>✓</td></tr><tr><td>8</td><td>92</td><td>127</td><td>Color Rock SOME FRACTURES</td><td>✓</td></tr><tr><td>8</td><td>127</td><td>165</td><td>BROWN ROCK BASALT</td><td>✓</td></tr><tr><td>8</td><td>165</td><td>167</td><td>RED ROCK BASALT</td><td>✓</td></tr><tr><td>8</td><td>167</td><td>190</td><td>BROWN ROCK BASALT</td><td>✓</td></tr><tr><td>8</td><td>190</td><td>200</td><td>GREY ROCK SOME LAY</td><td>✓</td></tr><tr><td>8</td><td>200</td><td>210</td><td>RED LAY & ROCK</td><td>✓</td></tr><tr><td>8</td><td>210</td><td>215</td><td>DIRTY BASALT</td><td>✓</td></tr><tr><td>8</td><td>215</td><td>220</td><td>RED INTERBEDDED WATER</td><td>✓</td></tr><tr><td>8</td><td>220</td><td>225</td><td>BLUE BASALT HARD</td><td>✓</td></tr></tbody></table>		Bore Diam.	Depth From	To	Material	Water Yes No	10	0	10	BROKEN ROCK	✓	10	10	20	SOFT ROCK & GREY LAY	✓	10	20	40	DIRTY DARK BASALT	✓	10	40	47	GRAVEL CEMENTED	✓	10	47	50	BROWN BASALT	✓	8	50	92	BROWN BASALT	✓	8	92	127	Color Rock SOME FRACTURES	✓	8	127	165	BROWN ROCK BASALT	✓	8	165	167	RED ROCK BASALT	✓	8	167	190	BROWN ROCK BASALT	✓	8	190	200	GREY ROCK SOME LAY	✓	8	200	210	RED LAY & ROCK	✓	8	210	215	DIRTY BASALT	✓	8	215	220	RED INTERBEDDED WATER	✓	8	220	225	BLUE BASALT HARD	✓
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4. METHOD DRILLED ☐ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary ☒ Cable ☐ Dug ☐ Other _____		RECEIVED JAN 10 1994 NORTHERN REGION IDWR																																																																																	
5. WELL CONSTRUCTION Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____ Thickness _____ Diameter _____ From _____ To _____ Inches _____ inches _____ feet _____ feet Inches _____ inches _____ feet _____ feet Inches _____ inches _____ feet _____ feet Was casing drive shoe used? ☒ Yes ☐ No Was a packer or seal used? ☐ Yes ☐ No Perforated? ☐ Yes ☐ No How perforated? ☐ Factory ☐ Knife ☐ Torch SAW Size of perforation <u>1/8</u> inches by <u>8</u> inches Number _____ From _____ To _____ _____ perforations _____ feet _____ feet _____ perforations _____ feet _____ feet _____ perforations _____ feet _____ feet Well screen installed? ☐ Yes ☒ No Manufacturer's name _____ Type _____ Model No. _____ Diameter _____ Slot size _____ Set from _____ feet to _____ feet Diameter _____ Slot size _____ Set from _____ feet to _____ feet Gravel packed? ☐ Yes ☐ No ☐ Size of gravel _____ Placed from _____ feet to _____ feet Surface seal depth _____ Material used in seal: ☐ Cement grout ☒ Bentonite ☐ Pudding clay ☐ _____ Sealing procedure used: ☒ Slurry pit ☐ Tamp, surface casing ☐ Overbore to seal depth Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld ☐ Cemented between strata Describe access port <u>TOP OF WELL-WEIL CAP ACCESS PORT</u>																																																																																			
6. LOCATION OF WELL Sketch map location must agree with written location. <table border="1"><tr><td>N</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td>X</td><td></td><td></td><td></td></tr><tr><td>W</td><td></td><td></td><td></td><td>E</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table> Subdivision Name _____ Lot No. _____ Block No. _____ County <u>Nez Perce</u> <u>NW</u> <u>1/4</u> <u>NW</u> <u>1/4</u> Sec. <u>27</u> T. <u>36</u> N. S. R. <u>5</u> E. (M)		N						X				W				E											10. Work started <u>11-92</u> finished <u>4-30-93</u>																																																								
N																																																																																			
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11. DRILLERS CERTIFICATION I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Firm Name <u>DETAY Drilling</u> Firm No. <u>150</u> Address <u>1036-5th St</u> Date <u>12-28-93</u> Signed by (Firm Official) <u>[Signature]</u> and _____ (Operator) _____																																																																																			

USE ADDITIONAL SHEETS IF NECESSARY - FORWARD THE WHITE COPY TO THE DEPARTMENT

well # 2



POU

POD
#1

08/25/2011

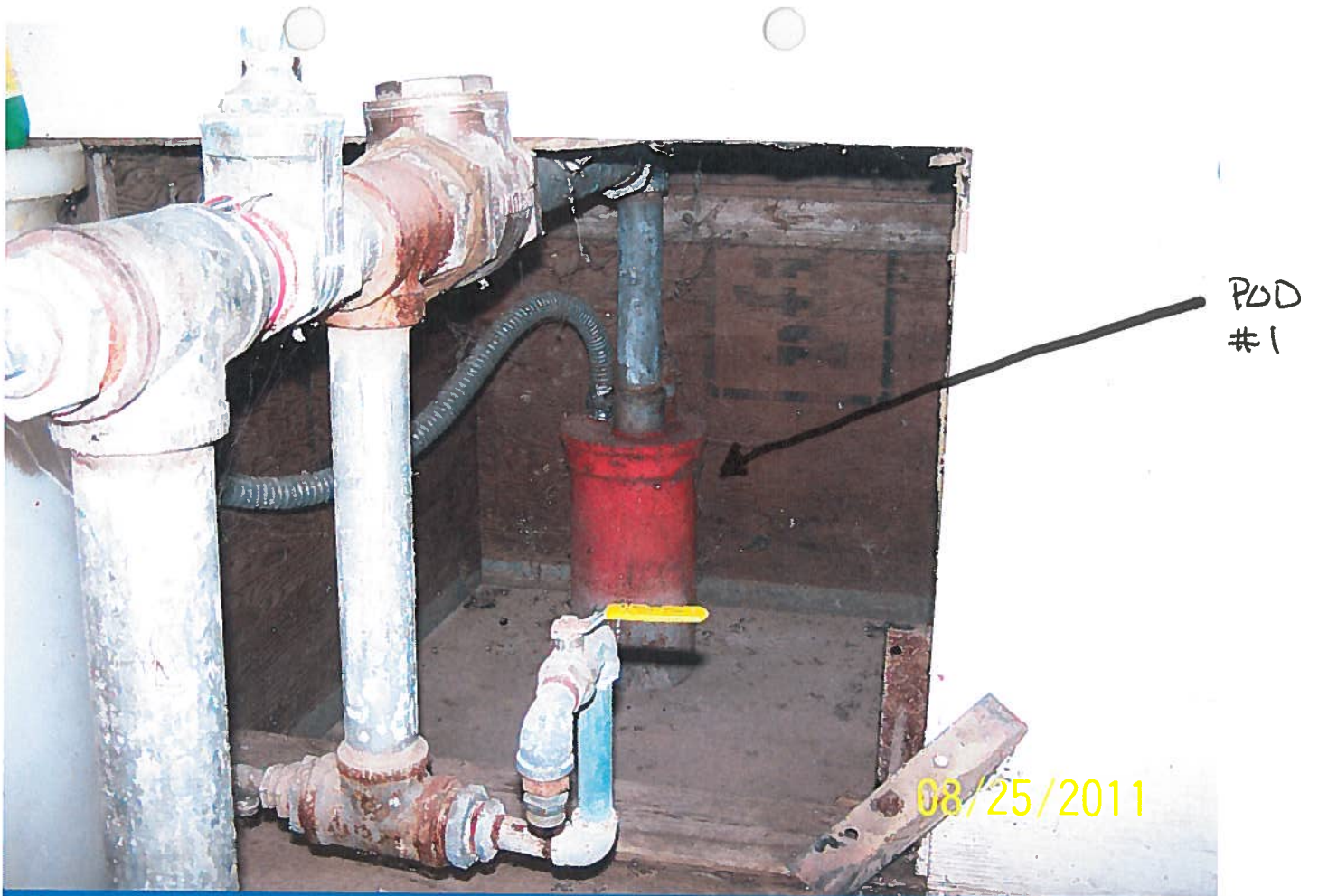


POD
#1 or
pump-
house

08/25/2011

86-7304 & 86-12001 Eaton

S. Hemenway





POD
#2



POU

86-7304 + 86-12001 Eaton

S. Hemenway



08/25/2011



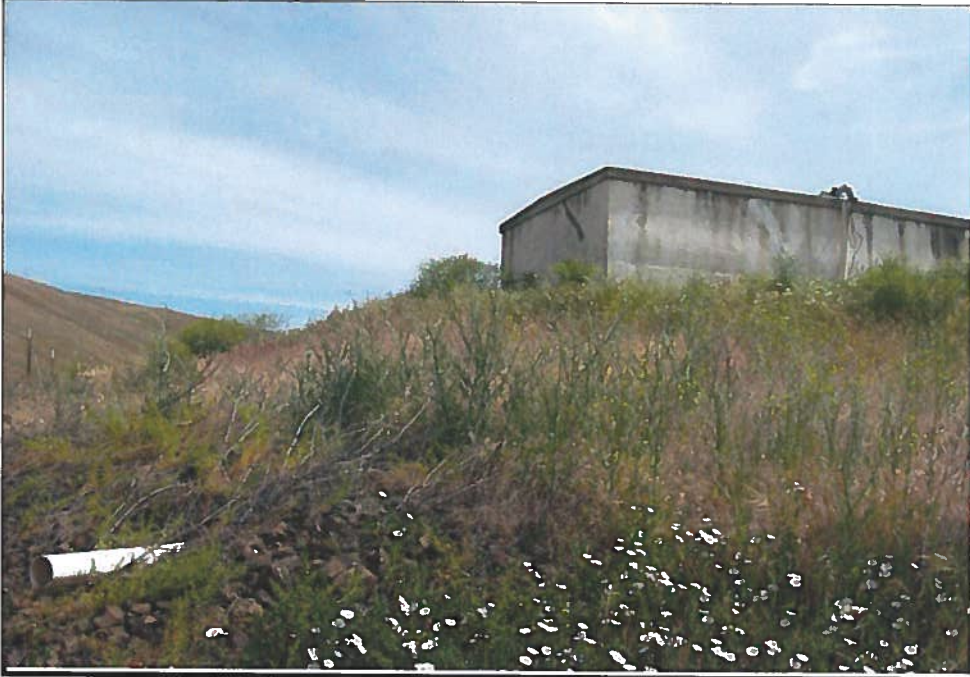
(2)
tanks

(1) 12,000
(1) 25,000
gallon

2nd
tank is
behind
the one
shown

(2) storage tanks for 86-7304 + 86-12001 Eaton

Facility/Site Name		New reservoir overflow drainage	
Location/Address		Eaton Mobile Home Park	
PWS#	2350008	Date	06/02/2009
Subject/Comments			



Facility/Site Name		Drain valve vault (thought to be for both)	
Location/Address		Eaton Mobile Home Park	
PWS#	2350008	Date	06/02/2009
Subject/Comments			



From: DEQ Sanitary Survey
Anna Moody

85-7668 (Renumbered to 86-12001) + 86-7304

Facility/Site Name		Insulated drain valve vault	
Location/Address		Eaton Mobile Home Park	
PWS#	2350008	Date	06/02/2009
Subject/Comments			



Facility/Site Name		Thought to be old reservoir drain (is screened inside)	
Location/Address		Eaton Mobile Home Park	
PWS#	2350008	Date	06/02/2009
Subject/Comments			



From: DEQ Sanitary Survey
Anna Moody

85-7668 (Renumbered to 86-17001) + 86-7304

Facility/Site Name		Typical 2-inch fire hydrant box	
Location/Address		Eaton Mobile Home Park	
PWS#	2350008	Date	06/02/2009
Subject/Comments			



From: DEQ Sanitary Survey
Anna Mosby

85-7668 (Renumbered to 86-12001) + 86-7304