

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-32182

Exam Date: 7/25/2012

1. Current Owner: CITY OF MIDDLETON
PO BOX 487
MIDDLETON ID 83644
(208)585-3133
2. Accompanied by: James Askew
Phone No: cell (208) 631-8537
Address: City of Middleton PO Box 487 Middleton, ID 83644
Relationship to Permit Holder: Certified Public Water System Operator
Other Contact: Jay Gibbons jgibbons@middletoncity.com
Additional Contact: Michael Martin, PE, Civil Dynamics, PC 422 S 9th Ave., Caldwell, ID 83605
(208)453-2028 mike@civildynamics.net

3. **SOURCE****TRIBUTARY**

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use:
2. Other water rights with the same point of diversion:

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

GROUND WATER L4 NW1/4NW1/4 Sec. 6, Twp 04N, Rge 02W, B.M.	CANYON County (well # 5)
GROUND WATER NE1/4NW1/4 Sec. 8, Twp 04N, Rge 02W, B.M.	CANYON County (well # 6)
GROUND WATER L2 NW1/4NE1/4 Sec. 5, Twp 04N, Rge 02W, B.M.	CANYON County (well # 4)
GROUND WATER SW1/4NW1/4 Sec. 17, Twp 04N, Rge 02W, B.M.	CANYON County (well # 7)*
GROUND WATER SE1/4NW1/4 Sec. 31, Twp 05N, Rge 02W, B.M.	CANYON County (well # 8)

*Well #7 had no flow records for 2010, 2011, 2012 and was confirmed via a 1/28/2013 email from Michael Martin, PE (copy attached), that well #7 has not been brought into service yet. That the City of Middleton is working with IDEQ on this process.

Method of Determination: wells #5, 6, and 7 (were from previous field examinations); well #8 determination via GPS Garmin Map 76S, ArcMap 2011 and esri Imagery.

2.
PLACE OF USE: MUNICIPAL

Service Area Boundary for the City of Middleton

Method of Determination: Updated shapefile for the service area boundary was submitted by Michael Martin, PE, and confirmed using ArcMap 2011 and esri Imagery (large POU update on ArcMap).

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable (Attached is an oversized map designating the City of Middleton's distribution system, location of wells, booster station, and storage tank is located).
- ☒ 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 (well #8, the booster station and the storage tank)
- ☒ Photo of Diversion and System Attached (well #8, and also the booster station, and storage tank)

4.

<u>Well or Diversion</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>ID No.*</u>					<u>Size</u>
E0008473	US Motor	250 Hp	(3 phase) model BF84A, cat. # H0250V2SLH		8 inch
			ID # L01-82001538-004R		

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

D. FLOW MEASUREMENTS

1.

<u>Measurement</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
Proline Promag 50 Electromagnetic Flow Meter					8 inch	unknown
(meter is located on the wall)						

2. Measurements:

Readings off of Meter:

542 – 761.0 gpm (651.5 average) = **1.45 cfs**, which the operator said was about "average."

E. FLOW CALCULATIONS

Measured Method:

2010 Flow Readings (conducted by the City of Middleton), where the highest monthly readings from 2010 – 2012 were used to help determine Peak Demand.

These readings did not include daily readings, therefore the total for the month had to be broken down into gallons per day, then gallons per hour, then into gallons per minute ($117.7007392 \times 0.00223 = 0.26$ cfs). This measurement is not an indication of any day having a Peak Demand, but rather "averages out" the diversion rate equally throughout the 31 days. **This calculation is not realistic of the Peak Demand, and would cause the water system to be out of compliance with the physical measurement which was obtained at the time of the field examination ($651.5 \text{ gpm} \times 0.00223 = 1.45$ cfs).**

For this reason, additional information was requested from the City of Middleton for more accurate individual days of monitoring, to confirm the Peak Demand. The following information was submitted by Michael Martin, PE, on 1/29/2014 (original emails attached), based on the operational setup of the water system in SCADA (Zero flow = the well was not used that day):

<u>Row Labels</u>	<u>Max of Flow (gpm)</u>
<u>Well No. 8</u>	-
<u>6/30/2012</u>	0
<u>7/1/2012</u>	0
<u>7/2/2012</u>	0
<u>7/3/2012</u>	0

<u>7/4/2012</u>	<u>0</u>
<u>7/5/2012</u>	<u>0</u>
<u>7/6/2012</u>	<u>0</u>
<u>7/7/2012</u>	<u>0</u>
<u>7/8/2012</u>	<u>0</u>
<u>7/9/2012</u>	<u>812</u>
<u>7/10/2012</u>	<u>1275</u>
<u>7/11/2012</u>	<u>487</u>
<u>7/12/2012</u>	<u>948</u>
<u>7/13/2012</u>	<u>789</u>
<u>7/14/2012</u>	<u>0</u>
<u>7/15/2012</u>	<u>0</u>
<u>7/16/2012</u>	<u>778</u>
<u>7/17/2012</u>	<u>783</u>
<u>7/18/2012</u>	<u>1224</u>
<u>7/19/2012</u>	<u>1106</u>
<u>7/20/2012</u>	<u>717</u>
<u>7/21/2012</u>	<u>794</u>
<u>7/22/2012</u>	<u>745</u>
<u>7/23/2012</u>	<u>823</u>
<u>7/24/2012</u>	<u>0</u>
<u>7/25/2012</u>	<u>0</u>
<u>7/26/2012</u>	<u>1232</u>
<u>7/27/2012</u>	<u>790</u>
<u>7/28/2012</u>	<u>1254</u>
<u>7/29/2012</u>	<u>0</u>
<u>7/30/2012</u>	<u>798</u>
<u>7/31/2012</u>	<u>1097</u>

1275 gpm X 0.00223 = 2.84 cfs Peak Demand

Summary of Calculations:

Theoretical $(8.8 \text{ X } 250 \text{ Hp X } 0.7 \text{ eff})/[52 \text{ ft } + (62 \text{ psi entire system X } 2.31)] = 7.88 \text{ cfs}$

Well Drillers Report: 2600 gpm for 8 hrs = 5.8 cfs

Field Examination Measurement ("average flow") = $651.5 \text{ gpm X } 0.00223 = 1.45 \text{ cfs}$

2010 Monthly Flow Report = 117.7 gpm daily average spread out over 31 days = 0.26 cfs (not realistic, since this does not show Peak Demand, and if this were recommended, they would be out of compliance with the physical measurement that was taken at the time of the field examination).

Peak Demand (submitted by Michael Martin, from SCADA measurements) = $1275 \text{ gpm X } 0.00223 = 2.84 \text{ cfs}$

RECOMMEND:

Municipal 1/1 – 12/31

2.84 cfs (to meet historical Peak Demand)

F. VOLUME CALCULATIONS

1. Volume Calculations for Municipal:

RECOMMEND: Municipal Use. No Volume will be listed on the License

2. Volume Calculations for Other Uses: None

G. NARRATIVE/REMARKS/COMMENTS

Well #8 is located in a cinder block pump house. It was drilled by Riverside Inc. on 11/10/2006. It has an 18 inch casing, is 493 ft deep, a 52 ft static, with a US Motor 3 phase 250 Hp turbine pump, model BF84A, cat # H0250V2SLH, ID # L01-82001538-004R, which sits on top of a 12 inch platform, above a 6 inch thick floor in the pump house (18 inches total above ground level). The ID Tag # E0008473 is located on the discharge of the well. The system runs at 50 psi, 10 inch discharge reducing to an 8 inch Proline Promag 50 Electromagnetic flow meter, then continuing to discharge out of the pump house to the distribution system. The distribution system mains throughout the City of Middleton consist of some 2 inch, some 4 inch, but mainly 6 inch, 8 inch, 10 inch, 12 inch and 16 inch water lines (Inside the file, see the oversized water utility map for the City of Middleton, showing the locations for all wells, water lines, booster station and the 2.0 million gallon storage tank).

At the time of the field examination, well #8 was running at 542 - 761.0 gpm (651.5 gpm average) which the operator stated was about normal. Before a picture of the flow meter could be taken with a live reading, the pump kicked off.

The water system is regulated by demand, and the level in the 2.0 million gallon storage tank kicks the wells on and off (regulated by a SCADA: Supervisory Control and Data Acquisition, with remote terminals connected to sensors to control and monitor the entire water system; the entire SCADA runs at 62 psi). There is a booster station, for the upper zone, located at T4N R2W Sec 6 SENW which provides a continuous loop in the distribution with a back-up generator. There are Pony pumps which act as back-ups to boost flow from 44 psi to 68 psi in the event of a fire or when one of the wells is not running. There is an 8 inch steel inlet from the distribution, then 2 Baldor booster pumps. One (#1) is a 7.5 Hp, 3 phase, cat. # JMM3219T, serial # F0-06090489. The other one (#2) is a 2.0 Hp, 3 phase, cat # JMM2515T, serial # S0304070161. Both discharge to a 10 inch steel line boosting water to the upper zone.

Located near well #4 is the 2.0 million gallon storage tank. The Horton 2.0 million gallon storage tank was built in 1977, is 24 ft 3 inch high, with a 120 ft diameter tank; 12 inch ductile iron discharge to 10 inch and 12 inch PVC mains. It has a 24 inch overflow and a 30 inch access hatch. The ID Tag is: AWWA D100, #73APPC, cont. # 71673.

Detailed information about following wells can be found in the previous file notes: #4 and 5 (63-8704), 6 (T4122) and for well #7 (T71407).

The PODs shown on water right 63-32182 are for wells 4, 5, 6, 7 and 8. Wells 1 and 2 were abandoned when well #7 was drilled (T71407), and well #3 was abandoned when well #6 was drilled (T4122). Well #7 is still non-operational due to the

City of Middleton is waiting on IDEQ approval. This is the reason for 0 gpm on the flow charts for 2010 thru 2012. (See the spreadsheet in the beneficial use field examination that breaks down all the water rights, their original wells, diversion rates either decreed or licensed, and capacity of each well).

Lots where wells #4, 5, 6 and 8, the booster station, and the storage tank are located are all owned in fee or easement agreements. The lot where well #7 is located is involved in a lease agreement.

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

The well drillers log for well #8 shows a steel casing to 418 ft, screened 298 - 456 ft, a clay layer at 288 - 300 ft, and then a fine-coarse sand layer at 300 ft (this meets the condition on the permit that the water bearing zone to be appropriated is from 150 to 500 feet).

H. RECOMMENDATIONS

1. Recommended Amounts

BENEFICIAL USE
MUNICIPAL

PERIOD OF USE
01/01 to 12/31

DIVERSION RATE
2.84 CFS

Totals: 2.84 CFS

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 *Judy Hemenway* Date: 1/29/2014

Basin	Sequence	Process	Basis	Status	RightID	Priority	Date	Div.	Rate	Source	List	Water Use	Current Owner	Volume	T71407	T4122	Original Well	Abandoned	Purpose	Capacity	How Measured
63	3398	Water Right	Decre	Active	574723	1/8/1964		1.110	GROUND	V	MUNICIPALITY OF MIDDLETON			Y				Yes		1.11	weir during F.E.
63	3545	Water Right	Decre	Active	635236	9/28/1968		0.040	GROUND	V	MUNICIPALITY OF MIDDLETON			Y			N/A		leg. dist. to ir. park		
63	8310	Water Right	Decre	Active	574686	7/21/1976		0.670	GROUND	V	MUNICIPALITY OF MIDDLETON			Y		Y	well #3	Yes		0.67	flowmeter, F.E.
63	8704	Water Right	Decre	Active	574724	4/18/1977		5.000	GROUND	V	MUNICIPALITY OF MIDDLETON			Y			wells #4 & 5			6.24	flowmeter, F.E.
63	9128	Water Right	Decre	Active	574725	3/29/1978		1.240	GROUND	V	MUNICIPALITY OF MIDDLETON			Y			wells #4 & 5		Fire Prot./increased rate		
63	22363	Water Right	Decre	Active	581859	3/3/1936		1.420	GROUND	V	MUNICIPALITY OF MIDDLETON			Y			1936	Yes		1.42	calculation only
63	32182	Water Right	Licen	Active	656891	8/15/2005		2.840	GROUND	V	MUNICIPALITY OF MIDDLETON						well #8			2.84	SCADA peak demand
63	32388	Water Permit	Active	612641	7/26/2006			5.000	GROUND	V	MUNICIPALITY OF MIDDLETON						well #9		Proof Due 7/1/2017		

TOTAL DIV. RATE: 12.280 (Not including 63-3545 irrigation, and 63-32388 permit.)*

TOTAL CAPACITY: 12.28*

*No combined limits will be included, since the total diversion rate does not exceed the total capacity of the system. No condition 190 on permit.

T71407 Wells #1 & 2 were abandoned, system was combined to show well #4, 5, 6 & 7 as PODs; well #7 was drilled (1/28/2014 email, well #7 is still not online; working w/IDEQ). Rights 63-8310 and 63-22363 when combined shall not exceed a total diversion rate of 4.0 cfs. Rights 63-3398, 63-8310, 63-8704, 63-9128 and 63-22363 when combined shall not exceed a total diversion rate of 11.35 cfs.

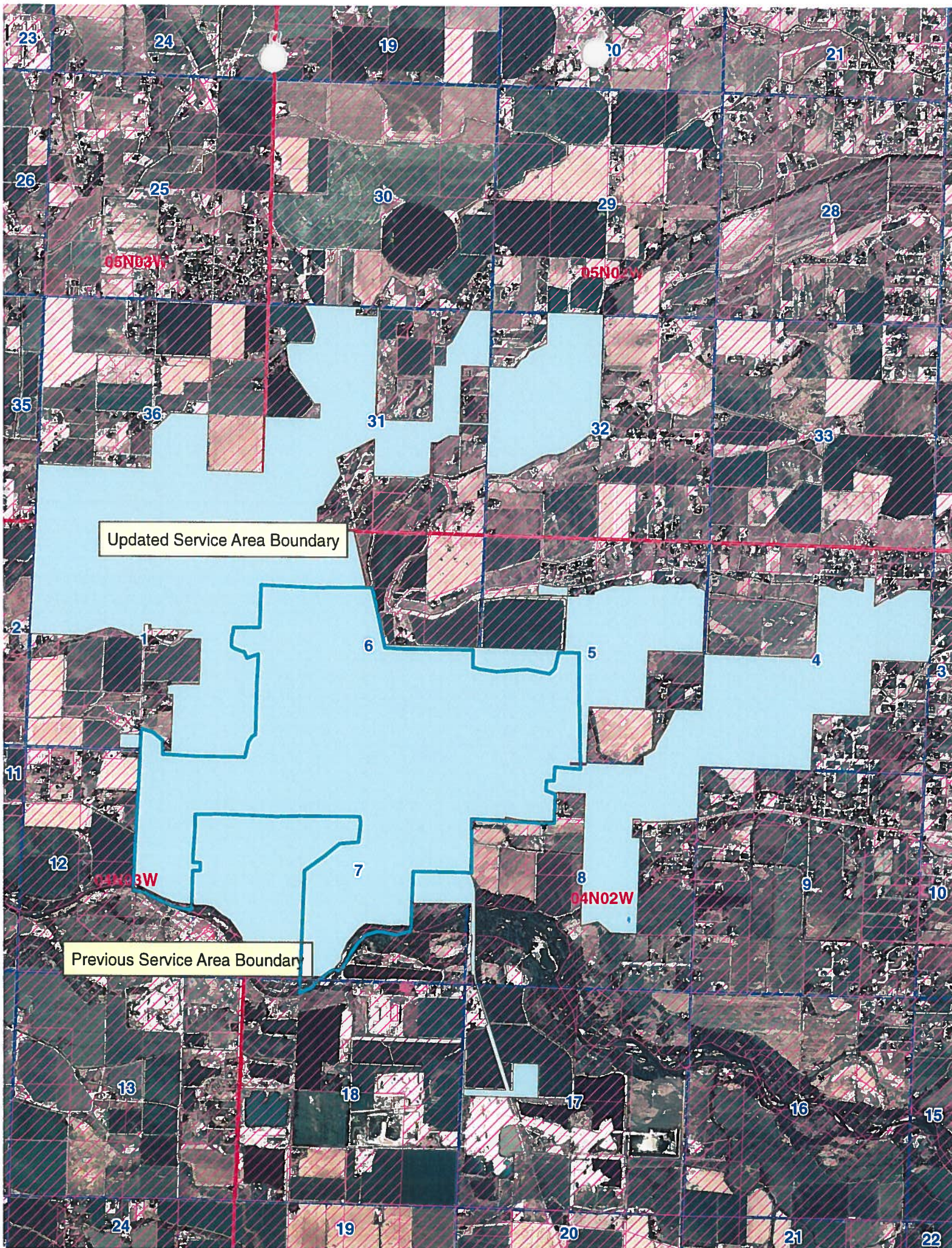
T4122 Well #3 was abandoned, and well #6 was drilled to replace it.

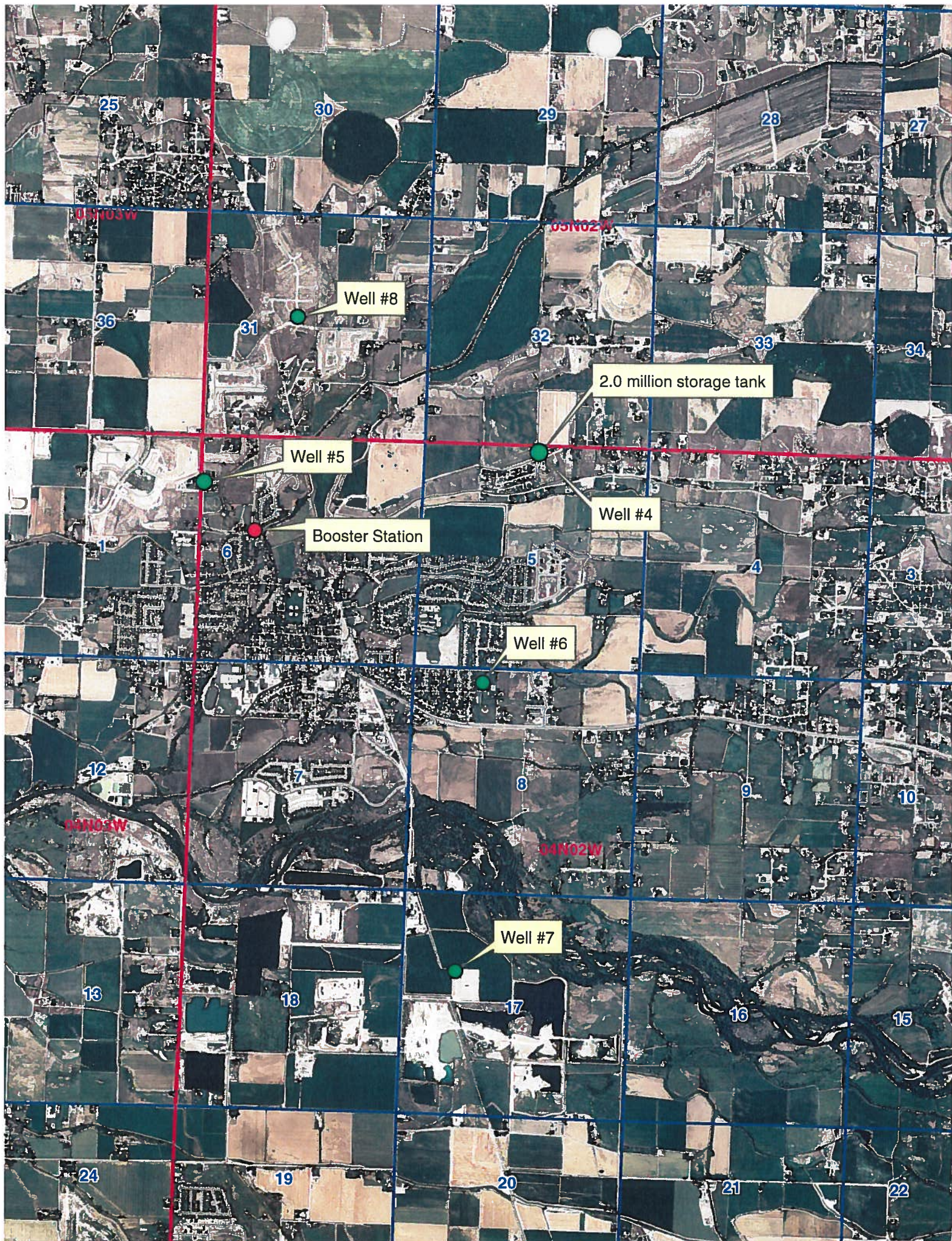
Irrigation for the park
 F.E. = field examination
 Abandoned wells

For: City of Middleton 63-3398, 63-3545, 63-8310, 63-8704, 63-9128, 63-22363, 63-32182 and 63-32388 Water Right Review

By: Sandy Hemenway

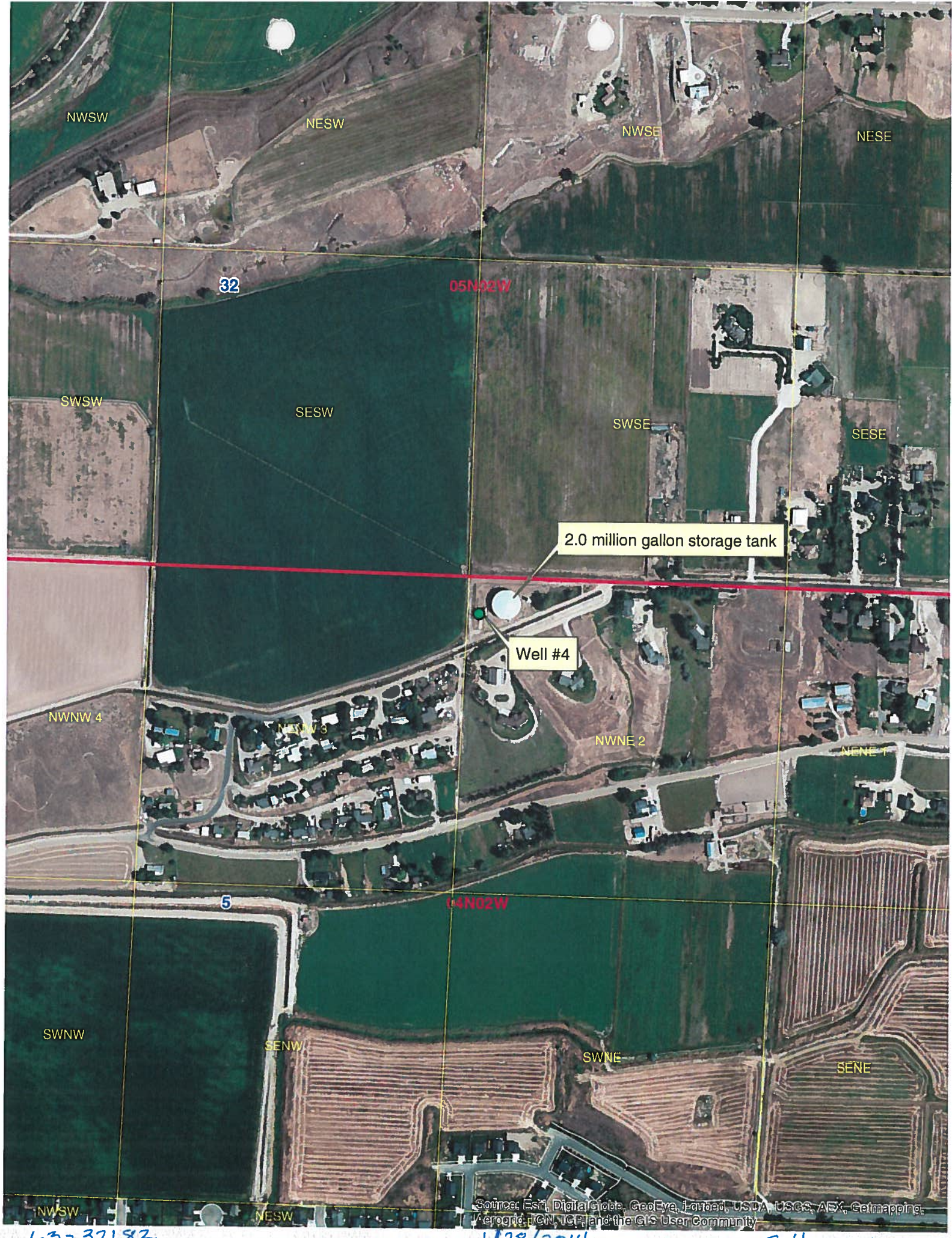
Date: 01.29.2014







Source: Esri, DigitalGlobe, GeoEye, Earthstar, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community



2.0 million gallon storage tank

Well #4

Source: Esri, DigitalGlobe, GeoEye, IGN, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

63-32182

1/28/2014

S. H. H. H.



Booster Station for the Upper Zone

SWNW 5

6

04N02W

SENW

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

63-32182 Middleton

1/28/2014

S. Homenyan



SCADA
System
(regulated
by tank
level).
ITZ tag#

ED000847:
located
on well
discharge
pipe

POD:
well # 8
pump
house

City
owns
the
caserna
where
well # 8
is located
and the
road
leading
to it.



flush
to waste

POD:
US Motor
3phase
250 HP
model #
BF84A,
cat #
H0250V2
SLH
ID#
LO1-82001
38-0041

8"
flange
with
reader o
the well
Proline
Promag

12" high
platform

6"
thick
floor

63-32182 Middleton

S. Hernerway



50psi

07/25/2012

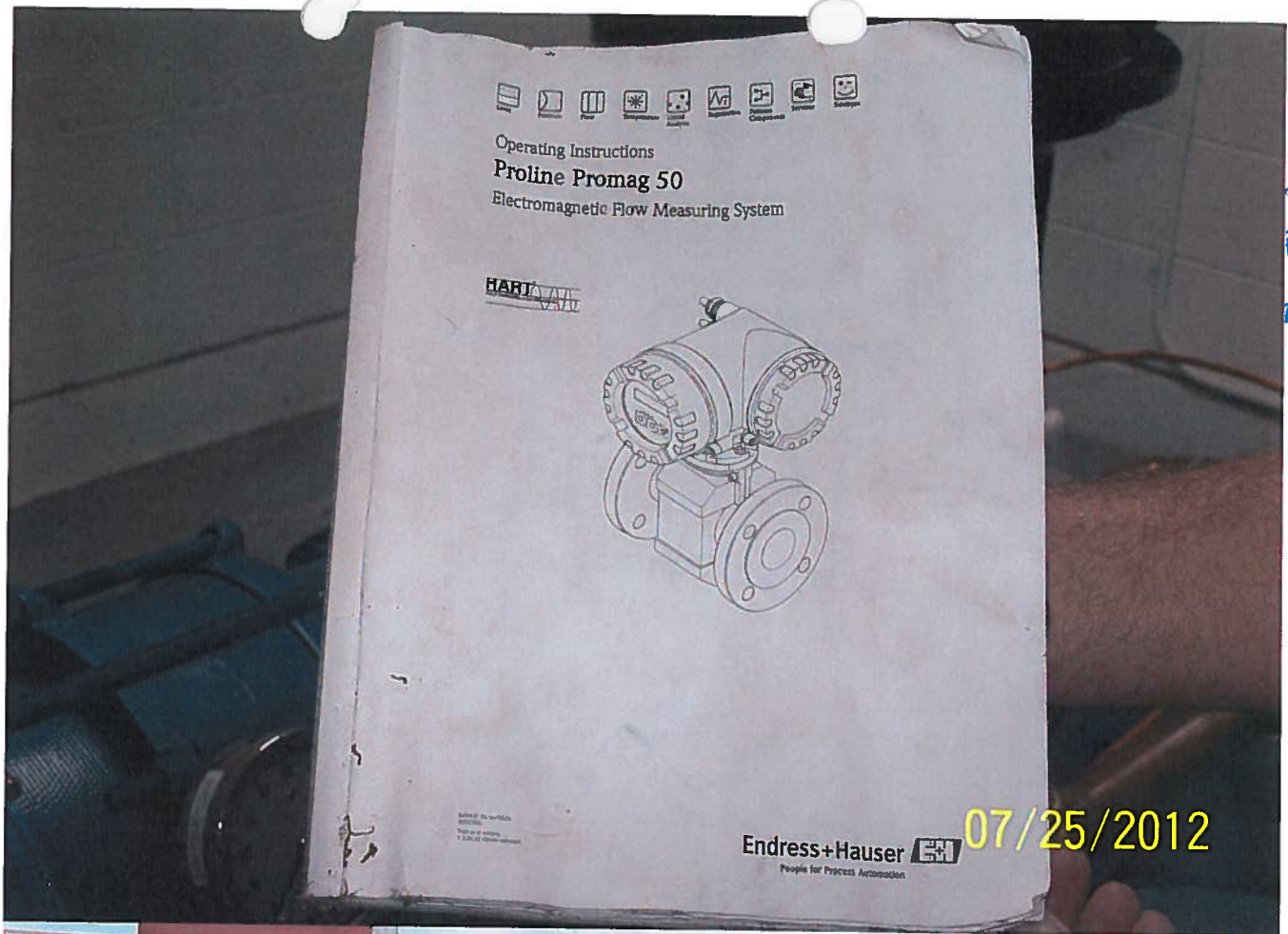
running
at
542 -
761 gpm
(651.5
gpm
average,
then
Kicked
off when
I went
to take
a picture
Operator
said that
about
normal.



07/25/2012

63-32182 Middleton

S. Hemerway



8"
Proline
Promag
50
Electro-
magnetic
Flow
meter
(manual)



Flush
to
waste
+
back-
up
generator

63-32182 Middleton

S. Hemerway



Booster
station
for
upper
zone
(a continuous
loop with
a back-
up
generator)

07/25/2012



44 psi
inlet press.
68 psi boost
8"
steel
in from
distribute

(2) Baldor
pumps
(back-up
if a fire
+ well is
not on.)

(a) Baldor's
7 1/2 HP
3 phase
#1 42P
Baldor
cat. JMM
3219T
ser. # FO-
00000439
#2
2 HP, 42P
3 phase
cat. JMM
2515T
ser. #
203040K

10" steel
boosted
to upper
zone

07/25/2012

63-32182 Middleton

S. Hemerway



Looking
back
from the
other
direction
in the
booster
station

07/25/2012



Control

07/25/2012

63-32182 Middleton

S. Hemerway



PSU:
City of
Middleton

The
Estates
Subdivision

07/25/2012

Storage
tank is
located
near
well #4.

SCADA
regulated
by level
in the
tanks

2 million
gallon
storage
tanks

Total
demand
system,
running
at 62 ps



07/25/2012

63-32182 Middleton

S. Hemerway



24"
overflow
36"
access
hatch

1977
Horton
2,000,000
gallon
storage
tank

AWWA
D100
#73APPC
24'3"
height
120'
diameter
cont. #

07/25/2012

71673,
12"
ductile
iron
discharge
to
10" + 12"
PVC
mains



07/25/2012

63-32182 Middleton

S. Hemenway

SE TYPEWRITER OR
BALLPOINT PEN

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

RECEIVED

DEC 14 1977

State law requires that this report be filed with the Director, Department of Water Resources
within 30 days after the completion or abandonment of the well.

1. WELL OWNER Name <u>City of Middleton</u> Address <u>City Hall, Middleton, Idaho 83644</u> Owner's Permit No. _____		7. WATER LEVEL Static water level <u>78</u> feet below land surface. Flowing? ☐ Yes ☒ No G.P.M. flow _____ Temperature <u>58</u> °F. Quality _____ Artesian closed-in pressure _____ p.s.i. Controlled by: ☐ Valve ☐ Cap ☐ Plug																																																																																																																																																																																																					
2. NATURE OF WORK ☒ New well ☐ Deepened ☐ Replacement ☐ Abandoned (describe method of abandoning) _____		8. WELL TEST DATA ☐ Pump ☐ Bailer ☐ Other <table border="1"><thead><tr><th>Discharge G.P.M.</th><th>Drawdown</th><th>Hours Pumped</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></tbody></table>		Discharge G.P.M.	Drawdown	Hours Pumped																																																																																																																																																																																																	
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5. WELL CONSTRUCTION Diameter of hole <u>28</u> inches Total depth <u>475</u> feet Casing schedule: ☒ Steel ☐ Concrete <table border="1"><thead><tr><th>Thickness</th><th>Diameter</th><th>From</th><th>To</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></tbody></table> Was casing drive shoe used? ☐ Yes ☒ No Was a packer or seal used? ☐ Yes ☒ No Perforated? ☐ Yes ☒ No How perforated? ☐ Factory ☐ Knife ☐ Torch Size of perforation _____ inches by _____ inches <table border="1"><thead><tr><th>Number</th><th>From</th><th>To</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></tbody></table> Well screen installed? ☒ Yes ☐ No Manufacturer's name <u>Johnson</u> Type <u>Stainless Steel</u> 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 <u>3/8 minus</u> Placed from <u>0</u> feet to <u>475</u> feet Surface seal depth <u>205'</u> Material used in seal: ☒ Cement grout ☐ Puddling clay ☐ Well cuttings Sealing procedure used: ☐ Slurry pit ☐ Temporary surface casing ☒ Overbore to seal depth		Thickness	Diameter	From	To																					Number	From	To										11. DRILLERS CERTIFICATION Firm Name <u>Pete Cope Drilling Co. Inc.</u> Firm No. <u>213</u> Address <u>10566 K-Bar-T Drive</u> <u>Boise, Idaho 83705</u> Date <u>12-5-77</u> Signed by (Firm Official) <u>Pete Cope</u> and <u>James Jones</u> (Operator)																																																																																																																																																																	
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6. LOCATION OF WELL Sketch map location must agree with written location. <u>63</u> <table border="1"><tr><td>N</td><td> </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><tr><td>S</td><td> </td><td> </td><td> </td><td> </td></tr></table> Subdivision Name _____ Lot No. _____ Block No. _____ County <u>Canyon</u> NW ¼ NE ¼ Sec. <u>5</u> , T. <u>4N</u> N/S, R. <u>2W</u> E/W		N					W				E											S					12. well # 4																																																																																																																																																																												
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<u>Casing</u>			
<u>Thickness</u>	<u>Diameter</u>	<u>From</u>	<u>To</u>
.375"	24"	+1	204
.375"	16"	+5	332
.375"	12"	332	334
.375"	12"	354	360
.375"	12"	365	370
.375"	12"	375	405
.365"	10"	405	410
.365"	10"	440	450
.365"	10"	460	470

<u>Screens</u>			
<u>Diameter</u>	<u>Slot Size</u>	<u>From</u>	<u>To</u>
12"	40	334	354
12"	40	360	365
12"	40	370	375
10"	40	410	440
10"	40	450	460

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DEC 24 1917

Department of Water Resources

WELL DRILLER'S REPORT

RECEIVED

DEC 22 1977

State law requires that this report 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 City of Middleton
Address City Hall, Middleton, Idaho 83644
Owner's Permit No. _____

7. WATER LEVEL

Static water level 95 feet below land surface OR
Flowing? ☐ Yes ☒ No G.P.M. flow _____
Temperature 58 °F. Quality _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning)

8. WELL TEST DATA

☐ Pump ☐ Bailor ☐ Other

Discharge G.P.M. Drawdown Hours Pumped

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test ☐ Other (specify type)
☒ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal
or Injection

9. LITHOLOGIC LOG

Hole Diam.	Depth		Material	Water	
	From	To		Yes	No
28	0	15	Top Soil, Hardpan, Clay		
	15	45	Sand, Gravel, River Rock		
	45	55	Brn. Clay w/Sand streaks		
	55	85	Brn. Sand w/Clay streaks		
	85	100	Brn. Clay		
	100	111	Brn. & Gray Sand		
	111	140	Brn. Clay w/Gray Sand streaks		
	140	145	Gray Sand w/Clay Streaks		
	145	185	Brn. Clay w/Sand streaks		
	185	190	Brn. Sand		
	190	195	Brn. Clay w/Sand streaks		
	195	220	Gray Sand Fine to Coarse		
	220	222	Brn. Clay		
	222	231	Brn. & Gray Sand fine to Coarse		
	231	233	Brn. Clay		
	233	240	Gray Sand Fine to Coarse		
	240	253	Brn. Clay		
	253	278	Brn. Sand Fine to Coarse		
	278	305	Brn. Clay w/Sand streaks		
	305	335	Brn. Sand Fine to Med.		
	335	355	Brn. & Gray Sand Med.		
	355	360	Brn. Clay		
	360	375	Blue Clay		

5. WELL CONSTRUCTION

Diameter of hole 28 inches Total depth 375 feet
Casing schedule: ☒ Steel ☐ Concrete

Thickness	Diameter	From	To
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	SEE ATTACHED SHEET	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

Was casing drive shoe used? ☐ Yes ☒ NoWas a packer or seal used? ☐ Yes ☒ NoPerforated? ☐ Yes ☒ NoHow perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation _____ inches by _____ inches

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

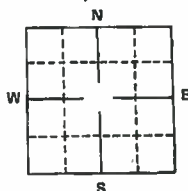
Well screen installed? ☒ Yes ☐ NoManufacturer's name JohnsonType Stainless Steel Model No. _____

Diameter _____ Slot size _____ Set from _____ feet to _____ feet

Diameter _____ Slot size _____ Set from _____ feet to _____ feet

Gravel packed? ☒ Yes ☐ No Size of gravel 3/8 minusPlaced from 0 feet to 375 feetSurface seal depth 95' Material used in seal: ☒ Cement grout☐ Puddling clay ☐ Well cuttingsSealing procedure used: ☐ Slurry pit ☐ Temporary surface casing☒ Overbore to seal depth

6. LOCATION OF WELL

Sketch map location must agree with written location. 62

Subdivision Name _____

Lot No. _____ Block No. _____

County Canyon

NW 1/4 NW 1/4 Sec. 6, T. 4N N/S, R. 2W E/W

10.

Work started 11-21-77 finished 12-2-77

11. DRILLERS CERTIFICATION

Firm Name Pete Cope Drilling Co. Inc. Firm No. 213Address 10566 K-Bar-T Drive
Boise, Idaho 83705 Date 12-5-77Signed by (Firm Official) Pete Cope

and

(Operator) John C. Jones

Casing

<u>Thickness</u>	<u>Diameter</u>	<u>From</u>	<u>To</u>
.375"	24"	0	95
.375"	16"	+2	195
.375"	12"	195	200
.375"	12"	220	225
.375"	12"	230	235
.375"	12"	240	255
.375"	12"	278	306
.365"	10"	306	313
.365"	10"	333	335
.365"	10"	355	365

Screens

<u>Diameter</u>	<u>Slot Size</u>	<u>From</u>	<u>To</u>
12"	40	200	220
12"	40	225	230
12"	40	235	240
12"	40	255	278
10"	40	313	333
10"	40	335	355

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Department of Water Resources

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

Use Typewriter
or
Ball Point Pen

1. DRILLING PERMIT NO. 63-93-W-1068 ²⁰⁰
Other IDWR No. 63-08318 ⁸⁰⁰

2. OWNER: Replaces 63-93-C-0110-000
Name Middleton
Address PO Box 176
City Middleton State ID Zip 83644

3. LOCATION OF WELL by legal description: 63-8310
Sketch map location must agree with written location.

N				
	X			
S				

Twp. 4 North ☒ or South ☐
Rge. 2 East ☐ or West ☒
Sec. 8 NW 1/4 NE 1/4 SW 1/4 SE 1/4
Gov't Lot _____ County CARLETON

Address of Well Site _____ City _____
(Give at least name of road + Distance to Road or Landmark)

Lt. 10 Blk. 15 Sub. Name Middleton place

4. PROPOSED USE:

☐ Domestic ☒ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK

☒ New Well ☐ Modify or Repair ☒ Replacement ☐ Abandonment

6. DRILL METHOD

☐ Mud Rotary ☐ Air Rotary ☒ Cable ☐ Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT		METHOD
Material	From	To	Sacks or Pounds		
Bentonite	+1	25	30		Overbore
"	170	235	20 Sacks of Bentonite		
"	+30		Sacks of cement pumped in		

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
18	+1	47	250		☒	☐	☒	☐
16	-25	80	250		☒	☐	☒	☐
10	+2	142	250		☒	☐	☒	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

☐ Perforations Method _____
☒ Screens Screen Type Johnson Stainless Steel

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
142	162	25		10	SS	☒	☐
242	262	25		10	SS	☒	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

8 ft. above ground Artesian pressure _____ lb.
Depth flow encountered 62, 142, 162. Describe access port or control devices: Well Cap and Valve
Also flowing at 242 to 262

11. WELL TESTS: 094007

☒ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
575	0 to 60	63	16 Hours

Water Temp. Less than 80 Bottom hole temp. _____

Water Quality test or comments: none

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
18	0	30	Gravel		
18	30	35	Sand		
18	35	45	Hard Brown Clay		
16	45	50	Hard Brown Clay		
	50	60	Brown Sand		
	60	70	Blue Clay		
	70	80	Brown Clay		
	80	90	Brown Sand		
	90	100	Brown Clay Mixed Sand		
	100	110	Brown Sand		
	110	115	Brown Clay		
	115	130	Coarse Sand		
	130	140	Clay		
	140	148	Brown Sand		
	148	150	Clay		
	150	160	Pea Gravel and Sand		
	160	165	Clay		
	165	170	Sand		
	170	195	Clay		
	195	200	Sand		
	200	220	Clay		
	220	225	Sand		
	225	240	Clay		
	240	243	Sand		
	243	265	Sand (Coarse)		
	265	267	Blue Clay		

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JUN 24 1996

SEP 1 1996 WATER RESOURCES
WESTERN REGION

Completed Depth 2 267 (Measurable)
Date: Started 3-16-95 Completed 6-2-95

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 KNIE WELL DRILLING Firm No. 417

Firm Official Mike Knie Date _____

Supervisor or Operator Brad Ransom + Mike Knie Date _____
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

1. WELL TAG NO. D 0053446
 DRILLING PERMIT NO. 907089-854542
 Water Right or Injection Well No. 63-32182, 63-32388

2. OWNER:
 Name CITY OF MIDDLETON Well # 4
 Address P.O. Box 487
 City MIDDLETON State ID Zip 83644

3. LOCATION OF WELL by legal description:

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

Twp. 4 North ☒ or South ☐
 Rge. 2 East ☐ or West ☒
 Sec. 17 NE 1/4 SW 1/4 NW 1/4
 Gov't Lot _____ County CANYON

Lat: 43:41:215 Long: 116:36:508

Address of Well Site EAST of MIDDLETON Rd, SECTION 17,
21520 Middleboro Rd City MIDDLETON

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 REVERSE

7. SEALING PROCEDURES

Seal Material	From	To	Weight / Volume	Seal Placement Method
<u>CEMENT GROUT</u>	<u>0</u>	<u>170</u>	<u>11 LBS</u>	<u>PUMPED</u>
<u>BENTONITE</u>	<u>215</u>	<u>225</u>	<u>2500</u>	<u>POURED</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>16</u>	<u>+3</u>	<u>180</u>	<u>.315</u>	<u>STEEL</u>	☒	☐	☒	☐
<u>12</u>	<u>180</u>	<u>192</u>	<u>.315</u>	<u>STEEL</u>	☒	☐	☒	☐
<u>12</u>	<u>212</u>	<u>230</u>	<u>.315</u>	<u>STEEL</u>	☒	☐	☒	☐

Length of Headpipe _____ Length of Tailpipe 5'

Packer ☐ Y ☒ N Type _____

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method _____

Screen Type & Method of Installation FACTORY SCREENS

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
<u>192</u>	<u>212</u>	<u>.030</u>		<u>12</u>	<u>S.S.</u>	☒	☐
<u>230</u>	<u>260</u>	<u>.030</u>		<u>12</u>	<u>S.S.</u>	☒	☐

10. FILTER PACK

Filter Material	From	To	Weight (Volume)	Placement Method
<u>#8-12 SAND</u>	<u>170</u>	<u>215</u>	<u>12,000</u>	<u>POUR</u>
<u>#8-12 SAND</u>	<u>225</u>	<u>270</u>	<u>12,000</u>	<u>POUR</u>

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

+3 ft. below ground Artesian pressure _____ lb.
 Depth flow encountered 121 ft. Describe access port or control devices:
1/2" PIPE PLUG w/ PRESSURE GAUGE

854542

Office Use Only
 Well ID No. 424287
 Inspected by _____
 Twp _____ Rge _____ Sec _____
 1/4 _____ 1/4 _____ 1/4 _____
 Lat: _____ Long: _____

12. WELL TESTS:

☒ Pump ☐ Bailor ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
<u>1150</u>	<u>115</u>	<u>115</u>	<u>24 hrs</u>

Water Temp. 55° Bottom hole temp. _____

Water Quality test or comments: _____

Depth first Water Encounter _____

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water	Y	N
<u>24</u>	<u>0</u>	<u>36</u>	<u>MED-COARSE SAND, RIVER COBBLES</u>		☒	☐
	<u>36</u>	<u>41</u>	<u>BROWN CLAY</u>		☐	☒
	<u>41</u>	<u>50</u>	<u>FINE SAND w/ CLAY LAYERS</u>		☐	☒
	<u>50</u>	<u>63</u>	<u>BRN SILTY CLAY</u>		☐	☒
	<u>63</u>	<u>66</u>	<u>FINE BRN SAND</u>		☐	☒
	<u>66</u>	<u>71</u>	<u>BRN CLAY</u>		☐	☒
	<u>71</u>	<u>72</u>	<u>FINE BRN SAND</u>		☐	☒
	<u>72</u>	<u>84</u>	<u>TAN CLAY</u>		☐	☒
	<u>84</u>	<u>86</u>	<u>MED-COARSE SAND</u>		☐	☒
	<u>86</u>	<u>105</u>	<u>TAN CLAY</u>		☐	☒
	<u>105</u>	<u>117</u>	<u>FINE SAND</u>		☒	☐
	<u>117</u>	<u>121</u>	<u>TAN CLAY</u>		☐	☒
	<u>121</u>	<u>155</u>	<u>COARSE BRN SAND</u>		☒	☐
	<u>155</u>	<u>156</u>	<u>TAN CLAY</u>		☐	☒
	<u>156</u>	<u>163</u>	<u>COARSE BRN SAND</u>		☒	☐
	<u>163</u>	<u>170</u>	<u>TAN CLAY</u>		☐	☒
	<u>170</u>	<u>177</u>	<u>COARSE SAND</u>		☒	☐
	<u>177</u>	<u>205</u>	<u>STICKY TAN CLAY</u>		☐	☒
	<u>205</u>	<u>208</u>	<u>SAND, CLAY MIX</u>		☐	☒
	<u>208</u>	<u>210</u>	<u>CLAY</u>		☐	☒
	<u>210</u>	<u>214</u>	<u>FINE SAND</u>		☒	☐
	<u>214</u>	<u>230</u>	<u>TAN CLAY</u>		☐	☒
	<u>230</u>	<u>234</u>	<u>FINE SAND</u>		☒	☐
	<u>234</u>	<u>242</u>	<u>RUSTY TAN CLAY</u>		☐	☒
	<u>242</u>	<u>244</u>	<u>MED-COARSE SAND</u>		☒	☐
	<u>244</u>	<u>248</u>	<u>TAN CLAY</u>		☐	☒
	<u>248</u>	<u>262</u>	<u>COARSE SAND, SOME FEA GRAVEL</u>		☒	☐
	<u>262</u>	<u>264</u>	<u>TAN CLAY</u>		☐	☒
	<u>264</u>	<u>270</u>	<u>MED SAND</u>		☒	☐
	<u>270</u>	<u>284</u>	<u>TAN CLAY</u>		☐	☒
	<u>284</u>	<u>288</u>	<u>FINE SAND</u>		☒	☐
	<u>288</u>	<u>295</u>	<u>BLUE CLAY</u>		☒	☐

Completed Depth 265' WATER RESOURCES (durable)
 Date: Started 1-15-09 Completed 3-10-09

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 RIVERSIDE INC Firm No. 333

Principal Driller _____ Date 3-18-09

Driller or Operator II _____ Date 3-18-09

Operator I _____ Date _____

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

FORWARD WHITE COPY TO WATER RESOURCES

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

838641

Office Use Only
Well ID No. 409008
Inspected by _____
Twp _____ Rge _____ Sec _____
1/4 _____ 1/4 _____ 1/4 _____
Lat: _____ Long: _____

Pg #1

1. WELL TAG NO. D 0047168
DRILLING PERMIT NO. 893314-838641
Water Right or Injection Well No. 63-32182 (CITY OF MIDDLETON)

2. OWNER:

Name REC. LLC, CITY OF MIDDLETON
Address 90 DARIN TAYLOR, 509 S. MIDDLETON AVE., #105
City MIDDLETON State ID Zip 83644

3. LOCATION OF WELL by legal description:

You must provide address or Lot, Blk, Sub. or Directions to well WELL #8

Twp. 5 North ☒ or South ☐
Rge. 2 East ☐ or West ☒
Sec. 31 1/4 SE 1/4 NW 1/4
Gov't Lot _____ County CANYON

Lat: _____ Long: _____
Address of Well Site MEADOW PARK BLVD. + CROSSING
AVE City MIDDLETON

(Give at least name of road + Distance to Road or Landmark)
Lt. 10 Blk. 4 Sub. Name THE CROSSING AT
MEADOW PARK

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 REVERSE

7. SEALING PROCEDURES

Seal Material	From	To	Weight / Volume	Seal Placement Method
BENTONITE	0	275	42.500	DRY POUR
BENTONITE	480	493	2.500	" "

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

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

8. CASING/LINER: 18" X 10" REDUCER @ 278'

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
18	278	278	375	STEEL	☒	☐	☒	☐
10	278	298	365	STEEL	☒	☐	☒	☐
10	338	418	365	STEEL	☒	☐	☒	☐

Length of Headpipe _____ Length of Tailpipe _____

Packer ☐ Y ☒ N Type _____

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method _____

Screen Type & Method of Installation JOHNSON WIRE WRAP

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
298	338	.030		10	S.S.	☒	☐
418	428	.030		10	S.S.	☒	☐
446	456	.030		10	S.S.	☒	☐

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method
#8-12 SAND	275	358	11.000	DRY POUR
#8-12 SAND	398	460	7.000	DRY POUR

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

52 ft. below ground Artesian pressure _____ lb.

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

1 1/2" PIPE ON SIDE

12. WELL TESTS:

☒ Pump ☐ Bailor ☐ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Pumping Level	Time
2600 gpm	100	152	8 hrs

Water Temp. _____ Bottom hole temp. _____

Water Quality test or comments: _____

Depth first Water Encounter _____

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia	From	To	Remarks: Lithology, Water Quality & Temperature	Water
				Y N
28	0	10	TOP SOIL	
	10	19	COARSE SAND	
	19	25	BRN CLAY	
	25	70	COARSE SAND, GRAVEL	
	70	76	BRN CLAY	
	76	83	FINE SAND	
	83	117	BRN CLAY w/sm SAND LAYERS	
	117	173	FINE-MED SAND	
	173	191	BRN CLAY	
	191	200	COARSE SAND	
20	200	288	CLAY w/sm SAND STREAKS	
	288	300	TAN CLAY	
	300	317	FINE-COARSE SAND	
	317	321	BRN CLAY	
	321	342	FINE-COARSE SAND	
	342	351	TAN CLAY	
	351	355	FINE SAND	
	355	378	TAN CLAY	
	378	381	MED. SAND	
	381	421	TAN CLAY w/SAND STREAK	
	421	433	FINE-MED SAND	
	433	439	BRN CLAY	
	439	483	FINE SAND w/sm CLAY STREAKS	
	483	488	BRN CLAY	
	488	493	COARSE-MED BLUE SAND	

RECEIVED

DEC 14 2006

WATER RESOURCES
WESTERN REGION

Completed Depth _____ (Measurable)

Date: Started 9-14-06 Completed 11-10-06

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 RIVERSIDE INC Firm No. 333

Principal Driller [Signature] Date 12-5-06

and Driller or Operator II [Signature] Date 12-5-06

Operator I [Signature] Date 12-5-06

Principal Driller and Rig Operator Required.

Operator I must have signature of Driller/Operator II.

FORWARD WHITE COPY TO WATER RESOURCES

WELL FLOW DATA

	x1000	x1000	x100	x1	x1	x1	TOTAL / MO.	TOT. AVG. / DAY		
DATE	ID# E0006417	ID# E0006416	ID# E0006418		ID# E0008473		TOTAL / MO.	AVG. / DAY	WELLS 4-5-6-8	WELLS 4-5-6-8
2010	WELL 4	WELL 5	WELL 6	WELL 7	WELL 8	WELL 9	2010	2010	2009	2009
JAN.	6,945,000	1,992,000	121,400		1,813,041		10,871,441	350,691	11,148,802	359,638
FEB.	6,289,000	1,433,000	131,900		1,760,265		9,614,165	343,363	9,987,810	356,707
MAR.	7,448,000	1,578,000	169,800		1,897,518		11,093,318	357,850	11,625,793	375,025
APRIL	6,824,000	2,202,000	262,400		2,440,153		11,728,553	390,951	15,118,651	503,955
MAY	10,031,000	2,892,000	635,700		2,230,530		15,789,230	509,330	19,473,668	628,182
JUNE	10,905,000	4,084,000	721,400		2,810,524		18,520,924	617,364	19,022,543	634,085
JULY	12,965,000	3,878,000	3,675,300		5,254,161	Peak month	25,772,461	831,369	30,002,180	967,812
AUG.	12,177,000	3,903,000	1,798,400		4,259,423		22,137,823	714,123	23,605,477	761,467
SEPT.	10,918,000	3,327,000	829,100		3,173,928		18,248,028	608,267	19,191,758	639,725
OCT.	8,434,000	1,974,000	385,500		2,801,392		13,594,892	438,545	12,825,136	413,714
NOV.	7,696,000	1,728,000	128,000		1,674,415		11,226,415	374,214	10,773,173	359,105
DEC.	7,031,000	1,874,000	112,800		1,897,801		10,915,601	352,116	11,797,624	380,568
TOTALS									194,572,615	
				* #7	not in service yet (working w/ IDEQ)					
					see 1/29/2014 email					
					— 117.7007392 gpm x .00223 = 0.26 cfs daily average for July					
					but is not representative of the Peak Demand					
					(see 1/29/2014 e-mail + attachment from Michael Martin, PE, Civil Dynamics					

WELL FLOW DATA

[illegible]

WELL FLOW DATA

	x1000	x1000	x100	x1	x1	x1			TOTAL / MO.	AVG. / DAY	
DATE	ID# E0006417	ID# E0006416	ID# E0006418		ID# E0008473		TOTAL / MO.	AVG. / DAY	WELLS 4-5-6-8	WELLS 4-5-6-8	
2012	WELL 4	WELL 5	WELL 6	WELL 7	Well 8	WELL 9	2012	2012	2011	2011	
JAN.	8,820,000	737,000	115,300	0	740,847	843000	11,256,147	363,102	12,906,489	416,338	
FEB.	7,758,000	670,000	113,600	0	740,238	699000	9,980,838	344,167	10,145,190	362,328	
MAR.	8,693,000	730,000	158,700	0	488,954	884,000	10,954,654	353,376	11,355,090	366,293	
APRIL	9,832,000	1,115,000	175,600	0	768,108	742,000	12,632,708	421,090	10,987,395	366,246	
MAY	13,588,000	1,079,000	792,600	0	1,067,079	1009000	17,535,679	565,667	13,525,141	436,295	
JUNE	16,399,000	2,259,000	946,900	0	1,983,698	1844000	23,432,598	781,087	20,083,851	669,462	
JULY							0	0	25,814,351	832,721	
AUG.							0	0	25,923,402	836,239	
SEPT.							0	0	18,870,076	629,002	
OCT.							0	0	12,347,687	398,312	
NOV.							0	0	10,747,044	358,235	
DEC.							0	0	11,356,950	366,353	
TOTALS											

* Well #7 not in service yet. They are working with IDEQ.
 (see 1/28/2014 e-mail from Mike Martin, PE (Civil Dynamics))

Hemenway, Sandy

Subject: FW: City of Middleton service area shapefile

From: Mike Martin [<mailto:mike@civildynamics.net>]
Sent: Tuesday, January 28, 2014 8:17 AM
To: Hemenway, Sandy
Subject: RE: City of Middleton service area shapefile

Hi Sandy,

I need to look around in our files for the 2012 data. The 2013 data will take a bit longer as I need to coordinate with the City and control guy.

Well No. 7 has not been brought into service. We are currently working with DEQ on process to bring it into service.

Please let me know if you have additional questions. I will follow up later today with the 2012 data.

Mike

Michael Martin, PE
Civil Dynamics, PC
422 S. 9th Ave.
Caldwell, ID 83605
Office: 208.453.2028
Fax: 208.453.2035

Well #7 Information

Hemenway, Sandy

Subject: FW: City of Middleton service area shapefile
Attachments: Well No. 8 Peak Flow Data for WR 63-31282.xlsx

From: Mike Martin [<mailto:mike@civildynamics.net>]
Sent: Wednesday, January 29, 2014 8:36 AM
To: Hemenway, Sandy
Subject: RE: City of Middleton service area shapefile

Hi Sandy,

Attached is a summary spreadsheet of the July 2012 daily flows. I can't send you the original SCADA trend data for July 2012 as the files is 58MB. A zero flow means that the well was not used that day. This is based on the operational setup of the water system in SCADA.

Please review and let me know if you have any questions. Thanks.

Mike

Michael Martin, PE
Civil Dynamics, PC
422 S. 9th Ave.
Caldwell, ID 83605
Office: 208.453.2028
Fax: 208.453.2035

Peak Demand

Row Labels	Max of Flow
Well No. 8	
6/30/2012	0
7/1/2012	0
7/2/2012	0
7/3/2012	0
7/4/2012	0
7/5/2012	0
7/6/2012	0
7/7/2012	0
7/8/2012	0
7/9/2012	812
7/10/2012	1275
7/11/2012	487
7/12/2012	948
7/13/2012	789
7/14/2012	0
7/15/2012	0
7/16/2012	778
7/17/2012	783
7/18/2012	1224
7/19/2012	1106
7/20/2012	717
7/21/2012	794
7/22/2012	745
7/23/2012	823
7/24/2012	0
7/25/2012	0
7/26/2012	1232
7/27/2012	790
7/28/2012	1254
7/29/2012	0
7/30/2012	798
7/31/2012	1097

$$1275 \text{ gpm} \times 0.00223 = 2.84 \text{ cfs Peak Demand}$$

MRFD

Hydrants by Hydrant Number (Summary)

All Applicable Records

Hydrant No	Location	Make/Mod/Yr	Out of Svc
A-001	Greenlinks AVE Last Flow Test: 06/28/2010	1034 gpm	0
A-002	FAIRWAY DR Last Flow Test: 06/28/2010	1034 gpm	0
A-003	Greenlinks AVE & FAIRWAY DR Last Flow Test: 06/28/2010	1007 gpm	0
A-004	Triumph DR Last Flow Test: 05/27/2008	1087 gpm	0
A-005	919 Conquest CT Last Flow Test: 05/27/2008	1061 gpm	0
A-006	903 Prevail PL Last Flow Test: 05/27/2008	1034 gpm	0
A-007	817 Triumph DR Last Flow Test: 06/28/2010	1061 gpm	0
A-008	897 Triumph DR Last Flow Test: 05/27/2008	1061 gpm	0
A-009	Triumph DR & PROVIDENCE AVE Last Flow Test: 06/29/2009	1061 gpm	0
A-010	1200 Triumph DR Last Flow Test: 06/29/2009	1061 gpm	0
A-011	1299 Triumph DR Last Flow Test: 06/29/2009	1061 gpm	0
A-012	1050 Peregrine DR Last Flow Test: 06/29/2009	1087 gpm	0
A-013	VALLEY ST Last Flow Test: 06/29/2009	1061 gpm	0
A-014	750 JOHNSON DR Last Flow Test: 06/29/2009	1113 gpm	0
A-015	950 JOHNSON DR Last Flow Test: 06/29/2009	1087 gpm	0
A-016	VALLEY ST Last Flow Test: 06/29/2009	1061 gpm	0
A-017	850 VALLEY ST Last Flow Test: 06/29/2009	1061 gpm	0
A-018	550 PROVIDENCE AVE Last Flow Test: 06/29/2009	1113 gpm	0
A-019	1100 VALLEY CT Last Flow Test: 06/29/2009	1061 gpm	0

MRFD

Hydrants by Hydrant Number (Summary)

All Applicable Records

Hydrant No	Location	Make/Mod/Yr	Out of Svc
A-020	Peregrine DR & Condor DR Last Flow Test: 06/29/2009	1034 gpm	0
A-021	Condor DR & Kestrel AVE Last Flow Test: 06/29/2009	1061 gpm	0
A-022	Peregrine DR & Raptor DR Last Flow Test: 06/29/2009	1087 gpm	0
A-023	Peregrine DR & HARP Y AVE Last Flow Test: 06/29/2009	1061 gpm	0
A-024	RAPTOR DR & HARP Y AVE Last Flow Test: 06/29/2009	1087 gpm	0
A-025	Condor DR & HARP Y AVE Last Flow Test: 06/29/2009	1061 gpm	0
A-026	Peregrine DR & Goshawk AVE Last Flow Test: 06/29/2009	1087 gpm	0
A-027	RAPTOR DR & Goshawk AVE Last Flow Test: 06/29/2009	1061 gpm	0
A-028	Goshawk AVE & Condor DR Last Flow Test: 06/29/2009	1113 gpm	0
A-029	Condor DR & GATEWAY AVE Last Flow Test: 06/03/2009	1061 gpm	0
A-030	RAPTOR DR & GATEWAY AVE Last Flow Test: 06/03/2009	1061 gpm	0
A-031	GATEWAY AVE & GOLD KING DR Last Flow Test: 06/03/2009	1061 gpm	0
A-032	Peregrine DR & GATEWAY AVE Last Flow Test: 06/03/2009	1061 gpm	0
A-033	GATEWAY AVE & GOLD ST Last Flow Test: 06/03/2009	1061 gpm	0
A-034	Condor DR & STAGE LINE PL Last Flow Test: 06/03/2009	1061 gpm	0
A-035	STAGE LINE PL Last Flow Test: 06/03/2009	1061 gpm	0
A-036	GOLD KING DR & NUGGET CT Last Flow Test: 06/03/2009	1034 gpm	0
A-037	NUGGET CT Last Flow Test: 06/03/2009	1034 gpm	0
A-038	FRONTIER AVE & GOLD ST Last Flow Test: 06/03/2009	1061 gpm	0

MRFD

Hydrants by Hydrant Number (Summary)

All Applicable Records

Hydrant No	Location	Make/Mod/Yr	Out of Svc
A-039	GOLD ST Last Flow Test: 06/03/2009 1061 gpm		0
A-040	Condor DR & GOLD ST Last Flow Test: 06/03/2009 1061 gpm		0
A-041	GOLD ST Last Flow Test: 06/03/2009 1061 gpm		0
A-042	GOLD ST Last Flow Test: 06/06/2009 1007 gpm		0
A-043	N MIDDLETON RD Last Flow Test: 06/03/2009 1087 gpm		0
A-044	N MIDDLETON RD Last Flow Test: 06/03/2009 1087 gpm		0
A-045	N MIDDLETON RD Last Flow Test: 06/03/2009 1087 gpm		0
A-046	N MIDDLETON RD & E MAIN ST Last Flow Test: 06/03/2009 1113 gpm		0
A-047	E MAIN ST & N CAMPBELL AVE Last Flow Test: 06/29/2009 1138 gpm		0
A-048	200 N CAMPBELL AVE Last Flow Test: 06/29/2009 1138 gpm		0
A-049	N CAMPBELL AVE & NEW YORK ST Last Flow Test: 06/29/2009 1087 gpm		0
A-050	E MAIN ST & BOARDWALK WAY Last Flow Test: 06/29/2009 1138 gpm		0
A-051	BOARDWALK WAY & TENNESSEE DR Last Flow Test: 06/29/2009 1087 gpm		0
A-052	300 BOARDWALK WAY Last Flow Test: 06/29/2009 1087 gpm		0
A-053	1200 NEW YORK ST Last Flow Test: 06/29/2009 1113 gpm		0
A-054	NEW YORK ST & ST CHARLES CT Last Flow Test: 06/29/2009 1034 gpm		0
A-055	250 PACIFIC AVE Last Flow Test: 06/29/2009 1034 gpm		0
A-056	1300 TENNESSEE DR Last Flow Test: 06/29/2009 1034 gpm		0
A-057	1300 ST JAMES CT Last Flow Test: 06/29/2009 1061 gpm		0

MRFD

Hydrants by Hydrant Number (Summary)

All Applicable Records

Hydrant No	Location	Make/Mod/Yr	Out of Svc
A-058	E MAIN ST Last Flow Test: 06/29/2009 1087 gpm		0
A-059	Park Place WAY & TENNESSEE DR Last Flow Test: 06/29/2009 1087 gpm		0
A-060	300 Park Place WAY Last Flow Test: 06/29/2009 1034 gpm		0
A-061	E MAIN ST & Park Place WAY Last Flow Test: 06/11/2009 1061 gpm		0
A-062	ATLANTIC AVE & NEW YORK ST Last Flow Test: 06/29/2009 1061 gpm		0
A-063	300 ATLANTIC AVE Last Flow Test: 06/29/2009 1061 gpm		0
A-064	150 ATLANTIC AVE Last Flow Test: 06/29/2009 1061 gpm		0
A-065	FAIRWAY DR Last Flow Test: 06/28/2010 1061 gpm		0
A-066	Greenlinks AVE Last Flow Test: 06/28/2010 1034 gpm		0
A-067	Mulligan ST Last Flow Test: 06/28/2010 1061 gpm		0
A-068	Greenlinks AVE & Mulligan ST Last Flow Test: 06/28/2010 1061 gpm		0
A-069	Augusta AVE Last Flow Test: 06/28/2010 1034 gpm		0
A-070	Greenlinks AVE & HIGHWAY 44 HWY Last Flow Test: 06/28/2010 1034 gpm		0
A-071	MURPHY ST & HIGHWAY 44 HWY Last Flow Test: 06/29/2009 949 gpm		0
A-072	517 BOISE ST Last Flow Test: 06/29/2009 1061 gpm		0
A-073	412 KING AVE Last Flow Test: 05/18/2010 2082 gpm		0
A-074	S MIDDLETON RD & KING AVE Last Flow Test: 06/29/2009 1034 gpm		0
A-075	500 S MIDDLETON RD Last Flow Test: 06/29/2009 1061 gpm		0
A-076	S MIDDLETON RD & IDAHO ST Last Flow Test: 06/28/2010 1061 gpm		0

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Hydrants by Hydrant Number (Summary)

All Applicable Records

Hydrant No	Location	Make/Mod/Yr	Out of Svc
B-001	20 MARJORIE AVE Last Flow Test: 06/22/2009	1061 gpm	0
B-002	E 2nd ST S & N MIDDLETON RD Last Flow Test: 06/22/2009	1061 gpm	0
B-003	803 E 2nd ST S & BORUP AVE Last Flow Test: 06/22/2009	1061 gpm	0
B-004	N MIDDLETON RD & E MAIN ST Last Flow Test: 06/22/2009	1061 gpm	0 X
B-005	E MAIN ST Last Flow Test: 06/22/2009	839 gpm	0
B-006	E MAIN ST & BORUP AVE Last Flow Test: 06/22/2009	1061 gpm	0
B-007	700 E MAIN ST & DUNCAN AVE Last Flow Test: 06/22/2009	1061 gpm	0
B-008	810 E MAIN ST & N CAMPBELL AVE Last Flow Test: 06/22/2009	1061 gpm	0
B-009	E MAIN ST Last Flow Test: 06/22/2009	993 gpm	0
B-010	103 DEWEY AVE Last Flow Test: 06/22/2009	1034 gpm	0
B-011	E 1st ST N & N 1st AVE E Last Flow Test: 06/22/2009	1061 gpm	0
B-012	7 E MAIN ST & HAWTHORN DR Last Flow Test: 06/22/2009	1034 gpm	0
B-013	18 E MAIN ST & S 1st AVE E Last Flow Test: 06/28/2009	1061 gpm	0
B-014	103 MAIN ST & S 1st AVE E Last Flow Test: 06/22/2009	1163 gpm	0
B-015	200 MAIN ST & DEWEY AVE Last Flow Test: 06/22/2009	1087 gpm	0
B-016	400 DEWEY AVE Last Flow Test: 06/22/2009	1074 gpm	0
B-017	23504 DEWEY AVE Last Flow Test: 06/22/2009	919 gpm	0
B-018	320 Triumph DR Last Flow Test: 06/22/2009	949 gpm	0
B-019	406 Triumph DR Last Flow Test: 06/22/2009	1007 gpm	0

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Hydrants by Hydrant Number (Summary)

All Applicable Records

Hydrant No	Location	Make/Mod/Yr	Out of Svc
B-020	628 Kennedy DR Last Flow Test: 06/22/2009	1007 gpm	0
B-021	519 Triumph DR Last Flow Test: 06/22/2009	1061 gpm	0
B-022	719 Kennedy DR Last Flow Test: 06/22/2009	1034 gpm	0
B-023	581 Kennedy DR Last Flow Test: 06/22/2009	1007 gpm	0
B-024	690 Kennedy DR Last Flow Test: 06/22/2009	1007 gpm	0
B-025	638 Triumph DR Last Flow Test: 06/22/2009	1061 gpm	0
B-026	696 Triumph DR Last Flow Test: 06/22/2009	1087 gpm	0
B-027	720 Triumph DR Last Flow Test: 06/22/2009	1061 gpm	0
B-028	532 VALLEY ST Last Flow Test: 06/22/2009	1113 gpm	0
B-029	638 VALLEY ST Last Flow Test: 06/22/2009	1113 gpm	0
B-030	477 VALLEY ST Last Flow Test: 06/22/2009	1034 gpm	0
B-031	579 MEADOW CT Last Flow Test: 06/22/2009	1007 gpm	0
B-032	400 MOUNTAIN LOOP Last Flow Test: 06/22/2009	1061 gpm	0
B-033	592 MOUNTAIN LOOP Last Flow Test: 06/22/2009	1061 gpm	0
B-034	481 MOUNTAIN LOOP Last Flow Test: 06/22/2009	1034 gpm	0
B-035	47 Cobblestone CT Last Flow Test: 06/22/2009	1163 gpm	0
B-036	620 W 9th ST N Last Flow Test: 06/29/2009	1061 gpm	0
B-037	414 Creekside CT Last Flow Test: 06/29/2009	1034 gpm	0
B-039	CANYON DR & HARMON WAY Last Flow Test: 06/22/2009	919 gpm	0

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Hydrants by Hydrant Number (Summary)

All Applicable Records

Hydrant No	Location	Make/Mod/Yr	Out of Svc
B-040	670 HARMON WAY Last Flow Test: 06/22/2009	1061 gpm	0
B-041	HARMON WAY & BORUP AVE Last Flow Test: 06/22/2009	1074 gpm	0
B-042	HARMON WAY & DUNCAN AVE Last Flow Test: 06/22/2009	1061 gpm	0
B-043	HARMON WAY & MARJORIE AVE Last Flow Test: 06/22/2009	1132 gpm	0
B-047	S Benewah Lake AVE & E Murtaugh Lake ST Last Flow Test: 06/29/2009	919 gpm	0
B-048	1033 S Twin Lakes DR Last Flow Test: 06/29/2009	919 gpm	0
B-049	S Twin Lakes DR & E Henrys lake DR Last Flow Test: 06/29/2009	949 gpm	0
B-050	E Henrys lake DR & S Benewah Lake AVE Last Flow Test: 06/29/2009	1061 gpm	0
B-051	1010 S Benewah Lake AVE Last Flow Test: 06/29/2009	1061 gpm	0
B-052	1056 S Hebgon Lake AVE Last Flow Test: 06/29/2009	1087 gpm	0
B-053	1005 S Hebgon Lake AVE Last Flow Test: 06/29/2009	919 gpm	0
B-054	S Hebgon Lake AVE & E Sawtooth Lake DR Last Flow Test: 06/29/2009	919 gpm	0
B-055	10 E Rose Lake DR Last Flow Test: 06/29/2009	919 gpm	0
B-056	52 E Rose Lake DR Last Flow Test: 06/29/2009	919 gpm	0
B-057	102 E Rose Lake DR Last Flow Test: 06/29/2009	1061 gpm	0
B-058	148 E Rose Lake DR Last Flow Test: 06/29/2009	1061 gpm	0
B-059	186 E Rose Lake DR Last Flow Test: 06/29/2009	1034 gpm	0
B-060	S Jar Bridge WAY & E Fernan Lake ST Last Flow Test: 06/29/2009	1034 gpm	0
B-061	782 S Arrow Rock AVE Last Flow Test: 06/29/2009	1061 gpm	0

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Hydrants by Hydrant Number (Summary)

All Applicable Records

Hydrant No	Location	Make/Mod/Yr	Out of Svc
B-062	132 WILLOW CREEK DR		
	Last Flow Test: 06/29/2009	1061 gpm	0
B-063	90 E Willow Creek DR		
	Last Flow Test: 06/29/2009	1061 gpm	0
B-064	S Redfish AVE & E Sawtooth Lake DR		
	Last Flow Test: 06/29/2009	1163 gpm	0
B-065	S Jar Bridge WAY & E Sawtooth Lake DR		
	Last Flow Test: 06/29/2009	1034 gpm	0
B-066	165 E Willow Creek WAY		
	Last Flow Test: 06/29/2009	1061 gpm	0
B-067	S Zehr AVE & E Sawtooth Lake DR		
	Last Flow Test: 06/29/2009	1034 gpm	0
B-068	E Sawtooth Lake DR & S Crane Creek WAY		
	Last Flow Test: 06/29/2009	1061 gpm	0
B-069	#1 E Sawtooth Lake DR		
	Last Flow Test: 06/29/2009	1061 gpm	0
B-070	#2 E Sawtooth Lake DR		
	Last Flow Test: 06/29/2009	1034 gpm	0
B-071	E Sawtooth Lake DR & N MIDDLETON RD		
	Last Flow Test: 06/29/2009	919 gpm	0
B-072	485 Creekside CT		
	Last Flow Test: 06/29/2009	1061 gpm	0
B-073	48 Walcott Lake CT		
	Last Flow Test: 06/29/2009	1087 gpm	0
B-074	109 E Murtaugh Lake ST		
	Last Flow Test: 06/29/2009	1061 gpm	0
B-075	200 E Murtaugh Lake ST		
	Last Flow Test: 06/29/2009	1061 gpm	0
B-076	930 Ashahka WAY		
	Last Flow Test: 06/29/2009	1061 gpm	0
C-001	La Reata WAY & Stallion Springs AVE		
	Last Flow Test: 08/23/2010	1278 gpm	0
C-002	Stallion Springs WAY & Stallion Springs AVE		
	Last Flow Test: 08/23/2010	1233 gpm	0
C-003	Mustang Mesa AVE		
	Last Flow Test: 08/23/2010	1342 gpm	0
C-004	1250 La Reata WAY		
	Last Flow Test: 08/23/2010	1233 gpm	0

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Hydrants by Hydrant Number (Summary)

All Applicable Records

Hydrant No	Location	Make/Mod/Yr	Out of Svc
C-005	1250 Stallion Springs WAY Last Flow Test: 08/23/2010	1342 gpm	0
C-006	Blue Sky AVE & Horseshoe Canyon DR Last Flow Test: 08/23/2010	1404 gpm	0
C-007	1150 La Reata WAY Last Flow Test: 08/23/2010	1278 gpm	0
C-008	1150 Stallion Springs WAY Last Flow Test: 08/23/2010	1321 gpm	0
C-009	1200 Horseshoe Canyon DR Last Flow Test: 08/23/2010	1342 gpm	0
C-010	White Horse Ridge DR Last Flow Test: 09/27/2010	1321 gpm	0
C-011	La Reata WAY & Horseshoe Canyon DR Last Flow Test: 08/23/2010	1321 gpm	0
C-012	Horseshoe Canyon DR & Stallion Springs WAY Last Flow Test: 08/23/2010	1342 gpm	0
C-013	1750 Horseshoe Canyon DR Last Flow Test: 08/23/2010	1342 gpm	0
C-014	1750 W Highlands PKY Last Flow Test: 09/27/2010	1321 gpm	0
C-015	White Horse Ridge DR & W Highlands PKY Last Flow Test: 09/27/2010	1342 gpm	0
C-016	W Highlands PKY & WILLIS RD Last Flow Test: 08/23/2010	1300 gpm	0
C-017	W Highlands PKY Last Flow Test: 08/23/2010	1321 gpm	0
C-018	W Highlands PKY Last Flow Test: 08/23/2010	1404 gpm	0
C-019	1080 White Horse Ridge DR Last Flow Test: 09/27/2010	1342 gpm	0
C-020	Windmill Springs CT Last Flow Test: 09/27/2010	1278 gpm	0
C-021	Windmill Springs CT Last Flow Test: 09/27/2010	1278 gpm	0
C-022	Windmill Springs CT & Stallion Springs WAY Last Flow Test: 09/27/2010	1363 gpm	0
C-023	1300 White Horse Ridge DR Last Flow Test: 09/27/2010	1342 gpm	0

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Hydrants by Hydrant Number (Summary)

All Applicable Records

Hydrant No	Location	Make/Mod/Yr	Out of Svc
C-024	Iron Stallion DR & Stallion Springs WAY		
	Last Flow Test: 09/27/2010	1300 gpm	0
C-025	Iron Stallion DR		
	Last Flow Test: 09/27/2010	1321 gpm	0
C-026	Abbey CT		
	Last Flow Test: 08/23/2010	1034 gpm	0
C-027	Abbey CT & Eaton AVE		
	Last Flow Test: 08/23/2010	1061 gpm	0
C-028	MANCHESTER CT		
	Last Flow Test: 08/23/2010	1061 gpm	0
C-029	Eaton AVE & MANCHESTER CT		
	Last Flow Test: 08/23/2010	1087 gpm	0
C-030	W 3rd ST N		
	Last Flow Test: 08/23/2010	1061 gpm	0
C-031	1104 W 3rd ST N		
	Last Flow Test: 08/23/2010	1061 gpm	0
C-032	W 3rd ST N & Sherwood		
	Last Flow Test: 08/23/2010	1061 gpm	0
C-033	220 Archer AVE		
	Last Flow Test: 08/23/2010	1034 gpm	0
C-034	W 3rd ST N & Southwell ST		
	Last Flow Test: 08/23/2010	1007 gpm	0
C-035	1130 Locksley ST		
	Last Flow Test: 10/02/2010	1034 gpm	0
C-036	268 Sherwood		
	Last Flow Test: 08/23/2010	1061 gpm	0
C-037	298 Southwell ST		
	Last Flow Test: 08/23/2010	1007 gpm	0
C-038	338 Archer AVE		
	Last Flow Test: 08/30/2010	1061 gpm	0
C-039	365 Forester RD		
	Last Flow Test: 08/30/2010	1061 gpm	0
C-040	1043 W 4th ST N		
	Last Flow Test: 08/30/2010	1061 gpm	0
C-041	856 W 4th ST N		
	Last Flow Test: 08/30/2010	1034 gpm	0
C-042	1008 Valiant AVE		
	Last Flow Test: 08/30/2010	1034 gpm	0

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Hydrants by Hydrant Number (Summary)

All Applicable Records

Hydrant No	Location	Make/Mod/Yr	Out of Svc
C-043	912 Valiant AVE		
	Last Flow Test: 08/30/2010	1061 gpm	0
C-044	452 Southwell ST		
	Last Flow Test: 08/30/2010	1061 gpm	0
C-045	CEMETERY RD		
	Last Flow Test: 08/30/2010	949 gpm	0
C-046	WILLIS RD		
	Last Flow Test: 08/30/2010	919 gpm	0
C-047	WILLIS RD & CEMETERY RD		
	Last Flow Test: 08/30/2010	1233 gpm	0
C-048	Cemetery RD		
	Last Flow Test: 08/30/2010	1233 gpm	0
C-049	N Windsor Park CT		
	Last Flow Test: 08/30/2010	1186 gpm	0
C-050	N Windsor Park CT		
	Last Flow Test: 08/30/2010	1256 gpm	0
C-051	W Hidden Meadow WAY		
	Last Flow Test: 08/30/2010	1256 gpm	0
C-052	W Hidden Meadow WAY		
	Last Flow Test: 08/30/2010	1256 gpm	0
C-053	W Hidden Meadow WAY		
	Last Flow Test: 08/30/2010	1300 gpm	0
C-054	W Hidden Meadow WAY		
	Last Flow Test: 08/30/2010	1256 gpm	0
C-055	N Windsor Park AVE		
	Last Flow Test: 08/30/2010	1186 gpm	0
C-056	W Meadow Creek WAY		
	Last Flow Test: 08/30/2010	1278 gpm	0
C-057	W Meadow Creek WAY		
	Last Flow Test: 10/08/2010	1210 gpm	0
C-058	W Meadow Creek WAY		
	Last Flow Test: 08/30/2010	1138 gpm	0
C-059	W Meadow Creek WAY		
	Last Flow Test: 10/08/2010	1138 gpm	0
C-060	W Meadow Creek WAY		
	Last Flow Test:	gpm	0 X
C-061	W Meadow Creek WAY		
	Last Flow Test:	gpm	0 X

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Hydrants by Hydrant Number (Summary)

All Applicable Records

Hydrant No	Location	Make/Mod/Yr	Out of Svc
C-062	W Meadow Creek WAY		
	Last Flow Test:	gpm	0 X
C-063	W Meadow Park BLVD & N Meadow Wood AVE		
	Last Flow Test: 08/30/2010	1256 gpm	0
C-064	W Meadow Park BLVD		
	Last Flow Test: 08/30/2010	1256 gpm	0
C-065	CEMETERY RD & W Meadow Park BLVD		
	Last Flow Test: 08/30/2010	1256 gpm	0
C-066	S Crane Creek WAY & E Rose Lake DR		
	Last Flow Test: 06/29/2009	1061 gpm	0
C-067	S Crane Creek WAY		
	Last Flow Test: 06/29/2009	1061 gpm	0
C-068	S Crane Creek WAY		
	Last Flow Test: 06/29/2009	1087 gpm	0
C-069	S MIDDLETON RD & BOISE ST		
	Last Flow Test: 05/19/2010	2161 gpm	0
C-070	S MIDDLETON RD & HIGHWAY 44 HWY		
	Last Flow Test: 05/19/2010	2326 gpm	0
C-071	DEWEY AVE & STAR BLVD		
	Last Flow Test:	gpm	0
C-072	DEWEY AVE & IDAHO ST		
	Last Flow Test:	gpm	0
C-073	310 BOISE ST		
	Last Flow Test: 06/29/2009	1087 gpm	0
C-074	287 BOISE ST		
	Last Flow Test: 06/29/2009	1087 gpm	0
C-075	287 BOISE ST		
	Last Flow Test: 06/28/2010	1061 gpm	0
C-076	210 Ascent CT		
	Last Flow Test: 06/28/2010	1034 gpm	0
D-001	D-001 WHIFFIN LANE		
	Last Flow Test: 06/26/2009	839 gpm	0
D-002	118 WHIFFIN LANE		
	Last Flow Test: 06/26/2009	919 gpm	0
D-003	203 S Highland DR		
	Last Flow Test: 06/26/2009	919 gpm	0
D-004	WHIFFIN LANE		
	Last Flow Test: 06/26/2009	993 gpm	0

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Hydrants by Hydrant Number (Summary)

All Applicable Records

Hydrant No	Location	Make/Mod/Yr	Out of Svc
D-005	803 MAIN ST Last Flow Test: 06/26/2009 919 gpm	0	
D-006	End of HIGHLAND DR Last Flow Test: 06/26/2009 0 gpm	0	X
D-007	HIGHLAND DR & HIGHWAY 44 HWY Last Flow Test: 06/26/2009 919 gpm	0	
D-008	511 W MAIN ST & HIGHWAY 44 HWY Last Flow Test: 06/26/2009 1034 gpm	0	
D-009	511 W MAIN ST Last Flow Test: 06/26/2009 1034 gpm	0	
D-010	901 W MAIN ST Last Flow Test: 06/26/2009 888 gpm	0	
D-011	S 4th AVE W Last Flow Test: 06/26/2009 1061 gpm	0	
D-012	200 N 4th AVE W Last Flow Test: 06/26/2009 888 gpm	0	
D-013	N 4th AVE W Last Flow Test: 06/26/2009 1007 gpm	0	
D-014	S 3rd AVE W & W MAIN ST Last Flow Test: 06/26/2009 1061 gpm	0	
D-015	ARBOR DR Last Flow Test: 06/26/2009 822 gpm	0	
D-016	BARBARA DR & S 1st AVE W Last Flow Test: 06/26/2009 1034 gpm	0	
D-017	102 BARBARA DR Last Flow Test: 06/26/2009 1061 gpm	0	
D-018	217 DONNA DR Last Flow Test: 06/26/2009 1034 gpm	0	
D-019	111 DONNA DR Last Flow Test: 06/26/2009 919 gpm	0	
D-020	18 W MAIN ST Last Flow Test: 06/26/2009 919 gpm	0	
D-021	120 W MAIN ST Last Flow Test: 06/26/2009 1061 gpm	0	
D-022	W MAIN ST & N 3rd AVE W Last Flow Test: 06/26/2009 1061 gpm	0	
D-023	606 W MAIN ST Last Flow Test: 06/26/2009 978 gpm	0	

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Hydrants by Hydrant Number (Summary)

All Applicable Records

Hydrant No	Location	Make/Mod/Yr	Out of Svc
D-024	760 W MAIN ST Last Flow Test: 06/26/2009	1061 gpm	0
D-025	760 W MAIN ST Last Flow Test: 06/29/2009	1034 gpm	0
D-026	1028 W MAIN ST Last Flow Test: 06/29/2009	1087 gpm	0
D-027	1028 W MAIN ST Last Flow Test: 06/26/2009	1034 gpm	0
D-028	N 4th AVE W & W 1st ST N Last Flow Test: 06/29/2009	949 gpm	0
D-029	N 3rd AVE W & W 1st ST N Last Flow Test: 06/29/2009	1034 gpm	0
D-030	N 2nd AVE W & W 2nd ST N Last Flow Test: 06/29/2009	919 gpm	0
D-031	210 HALVERSON PL Last Flow Test:	gpm	0 X
D-032	CONCORD ST & WILLOW DR Last Flow Test: 06/29/2009	919 gpm	0
D-033	735 WILLOW DR Last Flow Test: 06/29/2009	919 gpm	0
D-034	925 Redfern Last Flow Test: 06/29/2009	1300 gpm	0
D-035	868 Redfern Last Flow Test: 06/29/2009	1300 gpm	0
D-036	748 Redfern Last Flow Test: 06/29/2009	1321 gpm	0
D-037	478 W 7th ST N Last Flow Test: 06/29/2009	1424 gpm	0
D-038	850 BLUE GRASS WAY Last Flow Test: 06/29/2009	1384 gpm	0
D-039	611 CEMETERY RD Last Flow Test: 06/29/2009	1404 gpm	0
D-040	526 CEMETERY RD Last Flow Test: 06/29/2009	1321 gpm	0
D-041	604 W 7th ST N Last Flow Test: 06/29/2009	1384 gpm	0
D-042	CONCORD ST & CEMETERY RD Last Flow Test: 06/29/2009	1034 gpm	0

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Hydrants by Hydrant Number (Summary)

All Applicable Records

Hydrant No	Location	Make/Mod/Yr	Out of Svc
D-043	501 CONCORD ST Last Flow Test: gpm	0	X
D-044	481 N 4th AVE W Last Flow Test: 06/29/2009 1061 gpm	0	
D-045	341 N 4th AVE W Last Flow Test: 06/29/2009 1034 gpm	0	
D-046	388 N 5th AVE W Last Flow Test: 06/29/2009 1061 gpm	0	
D-047	245 N 5th AVE W Last Flow Test: 06/29/2009 1061 gpm	0	
D-048	610 W 3rd ST N Last Flow Test: 06/29/2009 1087 gpm	0	
D-049	642 HALVERSON ST Last Flow Test: 06/29/2009 1087 gpm	0	
D-050	492 HALVERSON ST Last Flow Test: 06/29/2009 1061 gpm	0	
D-051	100 CEMETERY RD Last Flow Test: 06/29/2009 1061 gpm	0	
D-052	Aspen CT Last Flow Test: 06/29/2009 1034 gpm	0	
D-053	345 Magnolia CT Last Flow Test: 06/29/2009 1087 gpm	0	
D-054	305 Magnolia CT Last Flow Test: 06/29/2009 1061 gpm	0	
D-055	510 Garden CT Last Flow Test: 06/29/2009 1061 gpm	0	
D-056	405 Garden CT Last Flow Test: 06/29/2009 1061 gpm	0	
D-057	800 CONCORD ST Last Flow Test: 06/29/2009 1061 gpm	0	
D-058	CONCORD ST & Fairhaven RD Last Flow Test: 06/29/2009 1061 gpm	0	
D-059	515 Castlerock AVE Last Flow Test: 06/29/2009 1061 gpm	0	
D-060	562 Castlerock AVE Last Flow Test: 06/29/2009 1034 gpm	0	
D-061	744 Castlerock AVE Last Flow Test: 06/29/2009 919 gpm	0	

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Hydrants by Hydrant Number (Summary)

All Applicable Records

Hydrant No	Location	Make/Mod/Yr	Out of Svc
D-062	634 Castlerock AVE		
	Last Flow Test: 06/29/2009	1034 gpm	0
D-063	694 Castlerock AVE		
	Last Flow Test: 06/29/2009	949 gpm	0
D-064	730 Fairhaven RD		
	Last Flow Test: 06/29/2009	949 gpm	0
D-065	626 Fairhaven RD		
	Last Flow Test: 06/29/2009	1034 gpm	0
D-066	580 Fairhaven RD		
	Last Flow Test: 06/29/2009	1061 gpm	0
D-067	WHIFFIN LANE & HIGHWAY 44 HWY		
	Last Flow Test: 06/29/2009	993 gpm	0
D-068	DONNA DR & S 1st AVE W		
	Last Flow Test: 06/29/2009	1034 gpm	0
D-069	999 S Alturas Lake PL		
	Last Flow Test: 06/29/2009	1087 gpm	0
D-070	280 E Willow Creek WAY		
	Last Flow Test: 06/29/2009	1061 gpm	0
D-071	788 Ashahka WAY		
	Last Flow Test: 06/29/2009	1087 gpm	0
D-072	284 E Rose Lake DR		
	Last Flow Test: 06/29/2009	1061 gpm	0
D-073	380 E Rose Lake DR		
	Last Flow Test: 06/29/2009	1061 gpm	0
D-074	396 E Willow Creek WAY		
	Last Flow Test: 06/29/2009	1061 gpm	0
D-075	951 Walcott Lake CT		
	Last Flow Test: 06/29/2009	1087 gpm	0
D-076	758 E Willow Creek WAY		
	Last Flow Test: 06/29/2009	1034 gpm	0
E-001	10500 RIDGEWAY RD		
	Last Flow Test:	gpm	0 X
E-002	10500 VALLEY-HI RD		
	Last Flow Test:	gpm	0 X
E-003	EDGEWAY DR & WINDING EDGE DR		
	Last Flow Test:	gpm	0
E-004	6910 PURPLE SAGE RD		
	Last Flow Test: 10/01/2010	1138 gpm	0

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Hydrants by Hydrant Number (Summary)

All Applicable Records

Hydrant No	Location	Make/Mod/Yr	Out of Svc
E-005	25124 Shadow Mountain CIR		
	Last Flow Test: 10/01/2010	1087 gpm	0
E-006	25243 Deep Canyon DR		
	Last Flow Test: 10/01/2010	1186 gpm	0
E-007	6224 PURPLE SAGE RD		
	Last Flow Test: 10/01/2010	1126 gpm	0
E-008	6080 PURPLE SAGE RD		
	Last Flow Test:	gpm	0
E-009	N CANADA RD & desert springs CIR		
	Last Flow Test: 10/01/2010	1278 gpm	0
E-010	5630 N CANADA RD & Deep Canyon DR		
	Last Flow Test: 10/01/2010	1278 gpm	0
E-011	25622 Deep Canyon DR		
	Last Flow Test: 10/01/2010	1126 gpm	0
E-012	25306 Deep Canyon DR & Desert Springs CIR		
	Last Flow Test: 10/01/2010	1186 gpm	0
E-013	25423 Desert Springs CIR		
	Last Flow Test: 10/01/2010	1186 gpm	0
E-014	GRIFFIN LANE & PAR DR		
	Last Flow Test: 10/01/2010	822 gpm	0
E-015	GRIFFIN LANE & BOGEY DR		
	Last Flow Test: 10/01/2010	888 gpm	0
E-016	GRIFFIN LANE		
	Last Flow Test: 10/01/2010	888 gpm	0
E-017	GRIFFIN LANE		
	Last Flow Test: 10/01/2010	919 gpm	0
E-018	420 S 1st AVE E		
	Last Flow Test: 06/29/2009	1138 gpm	0
E-019	315 S 1st AVE E		
	Last Flow Test: 06/29/2009	1061 gpm	0
E-020	251 HAWTHORN DR		
	Last Flow Test: 06/28/2010	1061 gpm	0
E-021	219 S 1st AVE E		
	Last Flow Test: 06/29/2009	1163 gpm	0
E-022	HAWTHORN DR & ASH ST		
	Last Flow Test: 06/28/2010	1061 gpm	0
E-023	201 S 1st AVE E		
	Last Flow Test: 06/29/2009	1061 gpm	0

MRFD

Hydrants by Hydrant Number (Summary)

All Applicable Records

Hydrant No	Location	Make/Mod/Yr	Out of Svc
E-024	W 1st ST N & N 1st AVE W Last Flow Test: 06/29/2009	919 gpm	0
E-025	E 2nd ST N & N 1st AVE E Last Flow Test: 06/29/2009	919 gpm	0
E-026	E 3rd ST N & HAWTHORN DR Last Flow Test: 06/29/2009	1034 gpm	0
E-027	E 3rd ST N & N 1st AVE E Last Flow Test: 06/29/2009	1061 gpm	0
E-028	DEWEY AVE Last Flow Test: 06/29/2009	1087 gpm	0
E-029	E 4th ST N & N 2nd AVE E Last Flow Test: 06/29/2009	1034 gpm	0
E-030	E 6th ST N & HAWTHORN DR Last Flow Test: 06/29/2009	949 gpm	0
E-031	DEWEY AVE & MINOT ST Last Flow Test: 06/29/2009	1034 gpm	0
E-032	HAWTHORN DR Last Flow Test: 06/29/2009	919 gpm	0
E-033	HAWTHORN DR & MINOT ST Last Flow Test: 06/29/2009	1034 gpm	0
E-034	HAWTHORN DR & CONCORD ST Last Flow Test: 06/29/2009	949 gpm	0
E-035	CONCORD ST & N 2nd AVE W Last Flow Test: 06/29/2009	787 gpm	0
E-036	W 9th ST N & N 4th AVE W Last Flow Test: 06/29/2009	1087 gpm	0
E-037	N Powder River DR Last Flow Test:	gpm	0
E-038	1009 N Powder River DR Last Flow Test: 06/29/2009	1404 gpm	0
E-039	1076 N BUFFALO WAY Last Flow Test: 06/29/2009	1404 gpm	0
E-040	N Powder River DR Last Flow Test: 06/29/2009	1404 gpm	0
E-041	1154 N BUFFALO WAY Last Flow Test: 06/29/2009	1404 gpm	0
E-042	N Powder River DR Last Flow Test: 06/29/2009	1404 gpm	0

MRFD

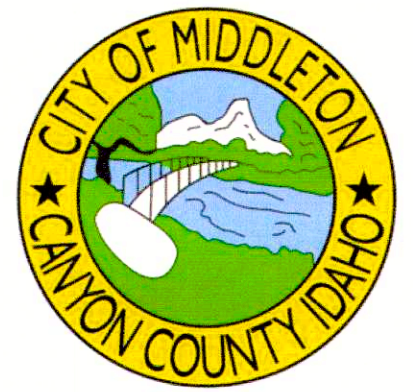
Hydrants by Hydrant Number (Summary)

All Applicable Records

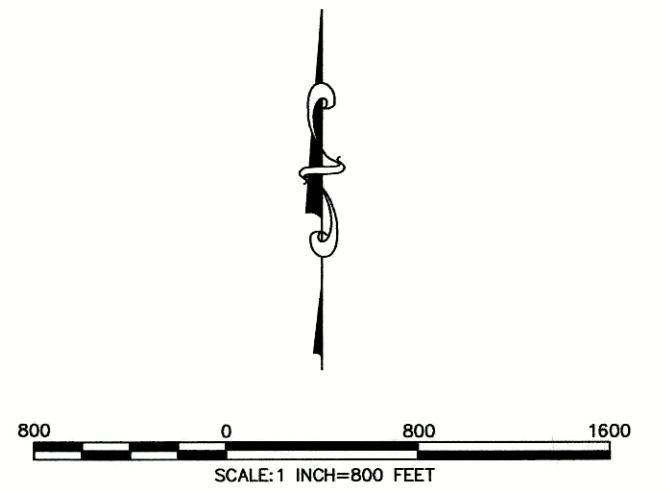
Hydrant No	Location	Make/Mod/Yr	Out of Svc
E-043	N BUFFALO WAY		
	Last Flow Test: 06/29/2009	1404 gpm	0
E-044	Laramie CT		
	Last Flow Test: 06/29/2009	1384 gpm	0
E-045	N BUFFALO WAY & Laramie CT		
	Last Flow Test: 06/29/2009	1384 gpm	0
E-046	N BUFFALO WAY & N Sheridan WAY		
	Last Flow Test: 06/29/2009	1384 gpm	0
E-047	N BUFFALO WAY		
	Last Flow Test: 06/29/2009	1384 gpm	0
E-048	Bison CT		
	Last Flow Test: 06/28/2010	0 gpm	0 X
E-049	N Sheridan WAY		
	Last Flow Test: 06/29/2009	1404 gpm	0
E-050	N Powder River DR		
	Last Flow Test: 06/29/2009	1404 gpm	0
E-051	N BUFFALO WAY		
	Last Flow Test: 06/29/2009	1404 gpm	0
E-052	N BUFFALO WAY		
	Last Flow Test: 06/29/2009	1384 gpm	0
E-053	N 4th AVE W & N Powder River DR		
	Last Flow Test: 06/29/2009	1404 gpm	0
E-080	N CANADA RD & N CanAda DR		
	Last Flow Test: 10/01/2010	1210 gpm	0
E-081	GRIFFIN LANE & FAIRWAY DR		
	Last Flow Test: 10/01/2010	856 gpm	0

Total Hydrants Listed: 355

City of Middleton

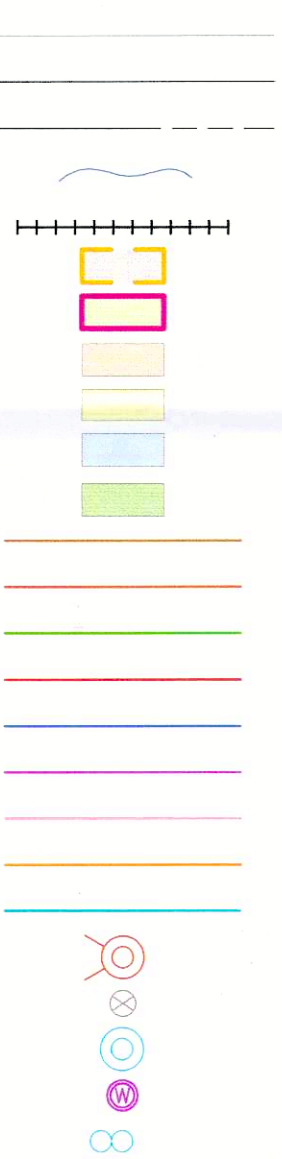


Water Utility Map



Legend:

- PARCEL BOUNDARY
- SUBDIVISION BOUNDARY
- ROAD R-O-W LINE
- ESTIMATED RIVER BOUNDARY
- RAILROADS
- CITY LIMITS
- IMPACT AREA
- CANYON COUNTY
- ADA COUNTY
- SCHOOLS
- PARKS
- SERVICE LINE
- 2" WATER LINE
- 4" WATER LINE
- 6" WATER LINE
- 8" WATER LINE
- 10" WATER LINE
- 12" WATER LINE
- 16" WATER LINE
- UNKNOWN WATER LINE
- FIRE HYDRANT
- WATER VALVE
- WATER VAULT
- MONITORING WELL
- BLOWOFF



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Revised December 2009

