

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

RECEIVED

JUN 15 2018

DEPARTMENT OF
WATER RESOURCES

A Beneficial Use Field Report is prepared by a water right examiner as the result of an examination to clearly confirm and establish the extent of the beneficial use of water established in connection with a permit during the development period authorized by the permit and any extensions of time previously approved.

A. GENERAL INFORMATIONPermit No. 63-328351. Owner City of NampaPhone No. (208) 468-5420Current address 411 3rd St. S., Nampa, ID 836512. Examiner's name Marci S. Pape, P.E. (Examiner 15-142)EXAM DATE 04/05/20163. Accompanied by Shane WendlerEmail Wendlers@cityofnampa.usAddress Nampa City Water Works, 24 1st St. S., Nampa, ID 83651Relationship to permit holder Lead Distribution OperatorPhone No. (208) 249-41574. Source Ground Water

tributary to _____

B. OVERLAP REVIEW1. Other water rights with the same place of use See attached remarks2. Other water rights with the same source and point of diversion None**C. DIVERSION AND DELIVERY SYSTEM**

1. Point(s) of Diversion:

Ident. No.	Gov't Lot	¼	¼	¼	Sec	Twp	Rge	County	Method of Determination/Remarks
		SW	SW	NE	34	4N	2W	Canyon	Exam, 2015 GIS Photo

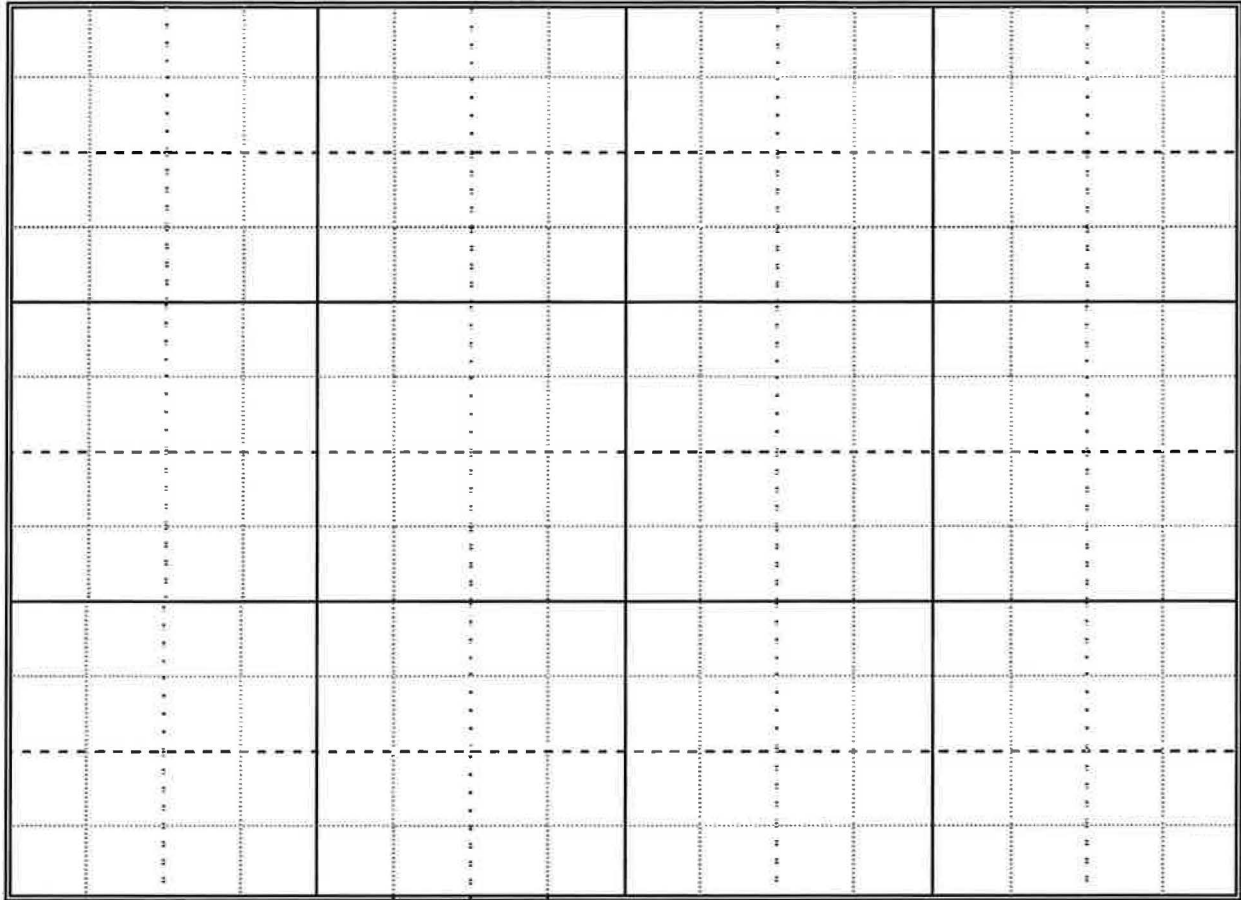
2. Place(s) of Use:

Method of determination * See below

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	

*Place of use is within the service area of the permittee's municipal water supply system as provided for under Idaho law.

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☐ see attached.



Scale: 1" = _____

- ☒ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (**required**)
☒ Aerial photo attached (required for irrigation of 10+ acres)
☒ Photo of diversion and system attached

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Well No. 20	GE	200	33104256	Peerless 14HXB,	10-inch; 150-foot setting
				6-stage	

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

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Flowmeter	magnetic	ABB War-	*	*	8-inch	
		minster				

2. **Measurements:** _____
 Examiner measured rates between 4.7 and 5.1 cfs, with an average rate of 4.94 cfs from the Section 34 well. The two Section 1 wells listed on the permit were not developed.

See attached.

[illegible]

Has the permit holder met all conditions of permit approval, including any mitigation requirements and/or measuring device installation requirements? ☒ Yes ☐ No If no, what must be done to meet the permit requirements?

[illegible]

B.1 OTHER WATER RIGHTS WITH SAME PLACE OF USE

63-2449	63-10212
63-2450	63-10319
63-2484	63-11511
63-2779	63-11729
63-2780	63-11894
63-2781	63-12322
63-2787	63-12463
63-2943	63-12474
63-3257	63-12506
63-5257	63-12543
63-5258	63-12591
63-7003	63-28219
63-7567	63-28220
63-7708	63-31243
63-8312	63-31504
63-8324	63-31598
63-8539	63-31949
63-9180	63-31961
63-9853	63-32179
63-9889	63-32337
63-10211	63-33022

E. NARRATIVE/REMARKS/COMMENTS

The original permit and the amended permit both included three separate points of diversion, but only one of the three sites were developed as a water source. This water right is recommended with a single point of diversion, as described above.

A 200-hp variable-speed line-shaft turbine well pump is installed in a 10-inch diameter well also known as Well 20. The well and pump supply water for use within the City of Nampa's potable and non-potable municipal systems. The examiner observed a pump capacity of approximately 2,217 gpm (4.94 cfs). (See Attachments F and G for flow measurement records and photos.) The well is completed to a depth of 333 feet, with 17.4-inch O.D. PVC casing to 270 feet and stainless-steel well screen from 243 to 333 feet.

Permit 63-32835 was approved for the diversion of 5.00 cfs (2,244 gpm) for municipal use. Test pumping was performed on September 19, 2014 by Riverside Inc., with oversight by SPF Water Engineering (see Attachment C). Test pumping was constrained by lack of drainage ditch capacity for water disposal, but it is likely that the well is capable of producing yields between 3,000 to 4,000 gpm. The maximum pumping rate during testing was 2,250 gpm with a pumping water level of approximately 92 feet. The projected pumping water level under sustained pumping conditions was 106 feet at 2,250 gpm, with a recommended pump setting of 150 feet.

Additional information to support licensing of Permit 63-32835 for the reasonably anticipated future needs of the City of Nampa can be found in the letter dated June 14, 2018 to which this beneficial use field report is attached.

Exam Attachment A: Permit records and Proof of Beneficial Use

Exam Attachment B: Topographic map and aerial photos

Exam Attachment C: Well Driller's Report, well test data, and pump curve

Exam Attachment D: Photos of the diversion works

Exam Attachment E: Flow Measurement Records

EXAM ATTACHMENT A

PERMIT RECORD AND PROOF OF BENEFICIAL USE

State of Idaho
Department of Water Resources
Amendment of Permit

NO. 63-32835

Priority: August 18, 2007

Maximum Diversion Rate: 5.00 CFS

Right Holder: CITY OF NAMPA
411 3RD ST S
NAMPA ID 83651

Source: GROUND WATER

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>RATE OF DIVERSION</u>
MUNICIPAL	01/01 to 12/31	5.00 CFS

LOCATION OF POINT(S) OF DIVERSION:

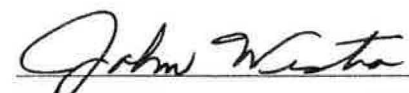
GROUND WATER	SW1/4SW1/4	Sec. 1, Twp 03N, Rge 02W, B.M. CANYON County
GROUND WATER	SW1/4SW1/4	Sec. 1, Twp 03N, Rge 02W, B.M. CANYON County
GROUND WATER	SW1/4SW1/4NE1/4	Sec. 34, Twp 04N, Rge 02W, B.M. CANYON County

LOCATION OF PLACE OF USE: See conditions of approval #3 and #4

CONDITIONS OF APPROVAL

1. Proof of application of water to beneficial use shall be submitted on or before **October 01, 2014**.
2. Subject to all prior water rights.
3. A map depicting the place of use boundary for this water right at the time of this approval is attached to this document for illustrative purposes.
4. Place of use is within the service area of the City of Nampa municipal water supply system as provided for under Idaho Law.
5. After specific notification by the Department, the right holder shall install a suitable measuring device or shall enter into an agreement with the Department to use power records to determine the amount of water diverted and shall annually report the information to the Department.
6. This right does not grant any right-of-way or easement across the land of another.
7. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code and applicable Well Construction Rules of the Department.
8. This right authorizes the diversion and use of 5.0 cfs for reasonably anticipated future needs for municipal purposes within the City of Nampa service area for a 21-year planning horizon ending December 31, 2030, pursuant to Section 42-202(B), Idaho Code.
9. The full system capacity necessary to provide water for the reasonably anticipated future needs authorized under this right must be constructed by the end of the designated planning horizon.
10. The Director retains jurisdiction to require the right holder to provide purchased or leased natural flow or stored water to offset depletion of Lower Snake River flows if needed for salmon migration purposes. The amount of water required to be released into the Snake River or a tributary, if needed for this purpose, will be determined by the Director based upon the reduction in flow caused by the use of water pursuant to this permit.

This permit is issued pursuant to the provisions of Section 42-204, Idaho Code. Witness the signature of the Director, affixed at Boise, this 5th day of December, 2013.


JOHN WESTRA, Western Regional Manager



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

December 9, 2013

CITY OF NAMPA
411 3RD ST S
NAMPA ID 83651

RE: Permit No.63-32835

Permit Approval Notice

Dear Permit Holder:

The Department of Water Resources has issued the enclosed permit authorizing you to establish a new water right. Please be sure to thoroughly review the conditions of approval and remarks listed on your permit.

The permit is a PRELIMINARY ORDER issued by the Department pursuant to Section 67-5243, Idaho Code. It can and will become a final order without further action by the Department unless a party petitions for reconsideration or files an exception and/or brief within fourteen (14) days of the service date as described in the enclosed information sheet.

Enclosed is a form entitled 'Instructions for Proof of Beneficial Use.' Please read the instructions carefully since you must take further action to develop this permit into a licensed water right. Also enclosed is a form entitled 'Proof of Beneficial Use.' If your project is already completed, you should complete and submit this form immediately.

The right to drill a well is not a part of this permit to appropriate water. Beginning in July of 1987, a statute was enacted which requires a drilling permit for new well construction and deepening of existing wells. If the well(s) proposed for use under this water right permit were drilled or deepened after July 1, 1987, a separate drilling permit must be obtained from this Department. Please contact the Ground Water Protection Section located here at this office or our regional office nearest you.

Also, please note that water right owners are required to report any change of water right ownership and/or mailing address to the Department within 120 days of the change. Failure to report these changes could result in a \$100 late filing fee. Contact any office of the Department or visit the Department's homepage on the Internet to obtain the proper forms and instructions.

If you have any questions, please contact me at (208)334-2190.

Sincerely,

A handwritten signature in cursive script that reads "Rachel Somner". Below the signature, the word "for:" is written in a smaller, simpler script.

John Westra
Western Regional Manager

Enclosures

CERTIFICATE OF SERVICE

I hereby certify that on December 9, 2013 I mailed a true and correct copy, postage prepaid, of the foregoing PRELIMINARY ORDER(Approved Permit) with a Map showing the Municipal Place of Use of Boundary to the persons listed below:

RE: WATER RIGHT NO.

63-32835

**CITY OF NAMPA
411 3RD ST S
NAMPA ID 83651**

**GIVENS PURSLEY LLP
ATTN: CHRISTOPHER H MEYER
601 W BANNOCK ST
PO BOX 2720
BOISE ID 83701**

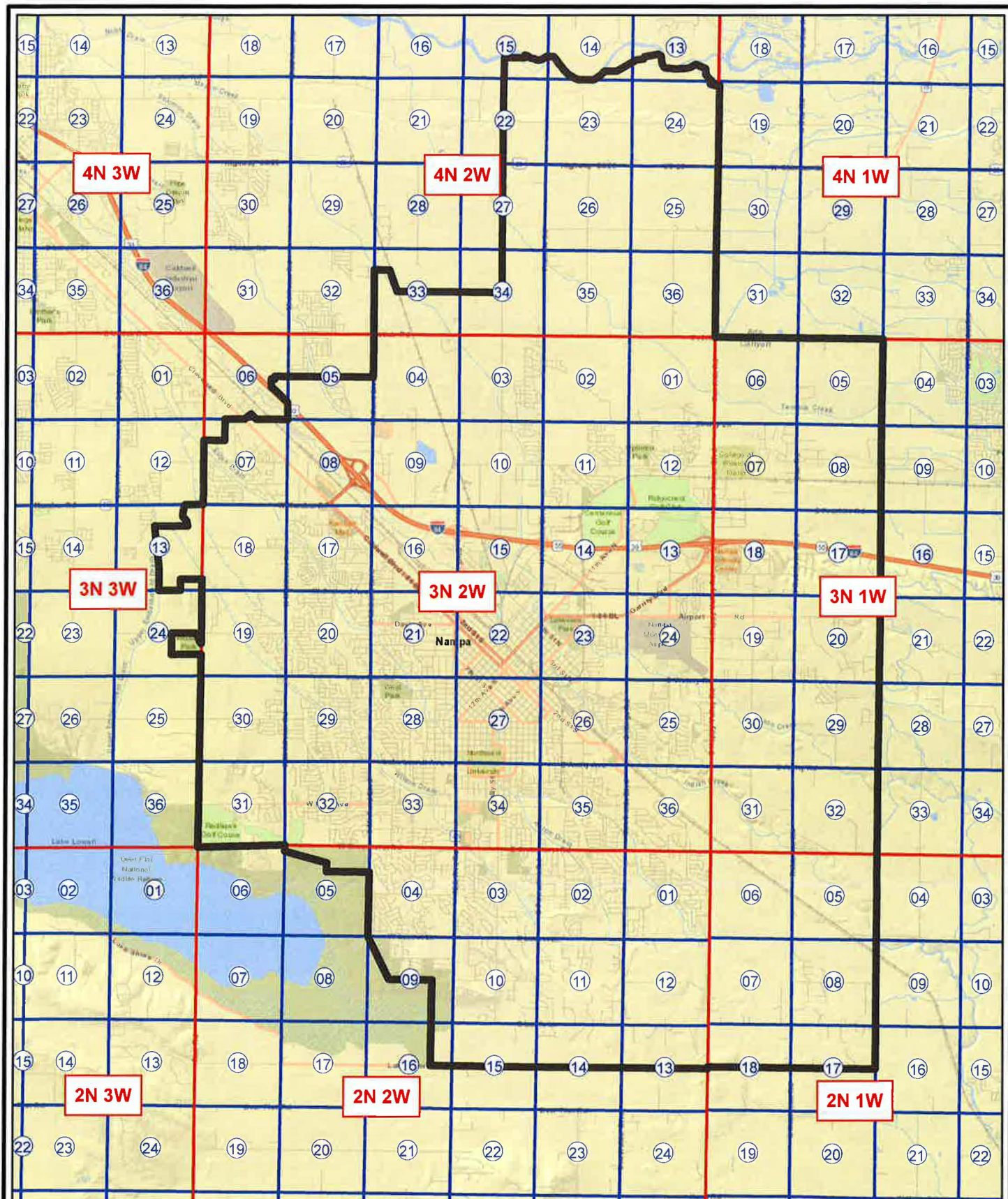
**SPF WATER ENGINEERING LLC
ATTN: LORI GRAVES
300 E MALLARD DR STE 350
BOISE ID 83706**

A handwritten signature in cursive script, reading "Rachel Sommer", is written over a horizontal line.

**Rachel Sommer
Administrative Assistant I**

EXAM ATTACHMENT B

TOPO MAP & 2015 AERIAL PHOTO



Service Area Boundary

City of Nampa Municipal Service Area
 (as updated September 6, 2016
 by Ordinance No. 4278)

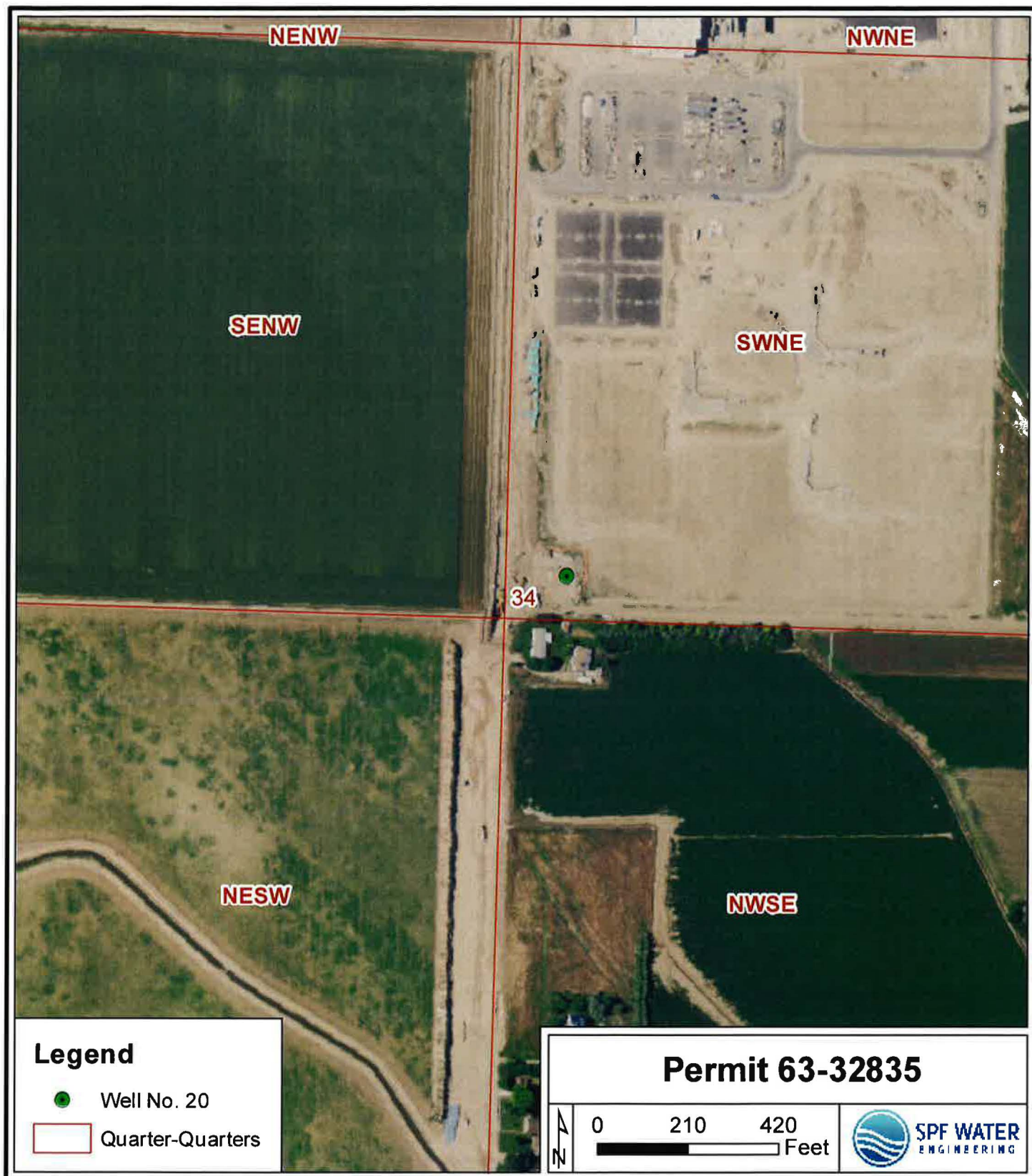


1

Miles



SPF WATER
 ENGINEERING



EXAM ATTACHMENT C

**WELL DRILLER'S REPORT, WELL TEST DATA, AND PUMP
CURVE**

IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

1. WELL TAG NO. D 0067289

Drilling Permit No. 966432 - 872491

Water right or injection well # 63-32835

2. OWNER: City of Nampa Public Works Department Well#20

Name _____

Address 411 3rd St. South

City Nampa State ID Zip 83651

3. WELL LOCATION:

Twp. 04 North ☒ or South ☐ Rge. 02 East ☐ or West ☒

Sec. 34 SW 1/4 40 acres NE 1/4 160 acres

Gov't Lot _____ County Canyon

Lat. 43 ° 38.500 (Deg. and Decimal minutes)

Long. 116 ° 33.767 (Deg. and Decimal minutes)

Address of Well Site East of Madison Road, between Linden and Ustick Roads City Nampa

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

Lot. _____ Blk. _____ Sub. Name _____

4. USE:

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

5. TYPE OF WORK:

☒ New well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other _____

6. DRILL METHOD:

☐ Air Rotary ☐ Mud Rotary ☐ Cable ☒ Other Reverse Rotary

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method/procedure
3/4" Bentonite	0	69	17,500 lbs	Dry pour
Cement/Bent	0	270	405 ft ³	Trimie pipe/pumped

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing	Liner	Threaded	Welded
24	+3	69	.375	Steel	☒	☐	☐	☒
17.4	+3	270	1.024	PVC	☒	☐	☐	☐
8	242	243	.25	Stainless	☐	☒	☐	☐
					☐	☐	☐	☐

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

9. PERFORATIONS/SCREENS:

Perforations ☐ Y ☒ N Method _____

Manufactured screen ☒ Y ☐ N Type Tight wrap / wire wrap

Method of installation Lower in

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
243	248	.030		8	S.S.	
248	273	.005		8	S.S.	Tight wrap
273	333	.030		8	S.S.	

Length of Headpipe _____ Length of Tailpipe _____

Packer ☒ Y ☐ N Type Johnson K Packer

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method
#8-12 Sand	244	333	7,500	Dry pour

11. FLOWING ARTESIAN:

Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG) _____

Describe control device _____

12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft) 16' Static water level (ft) 16'

Water temp. (°F) 62° Bottom hole temp. (°F) _____

Describe access port Lid with 2" plug

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Pump	Bailer	Air	Flowing artesian
36	1200	408	☒	☐	☐	☐

Test method:

Water quality test or comments: _____

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water	
				Y	N
28	0	7	Top soil		X
28	7	9	Brown caliche		X
28	9	48	Brown sand, river cobbles		X
28	48	68	Coarse brown sand	X	
28	68	69	Brown clay		X
23	69	80	Brown clay		X
23	80	82	Fine-coarse brown sand	X	
23	82	91	Brown clay		X
23	91	110	Fine-coarse brown sand	X	
23	110	119	Brown clay		X
23	119	121	Fine-medium brown sand	X	
23	121	129	Brown clay		X
23	129	131	Fine-medium brown sand	X	
23	131	133	Brown clay		X
23	133	145	Fine-medium brown sand	X	
23	145	157	Brown clay		X
23	157	159	Fine-medium brown sand	X	
23	159	178	Brown clay		X
23	178	200	Med-coarse brn sand w/pea gravel	X	
23	200	208	Brown clay		X
23	208	244	Fine-coarse brown sand	X	
23	244	250	Coarse brn sand w/brn clay steaks	X	X
23	250	266	Brown clay		X
23	266	268	Fine brown sand	X	
15	268	274	Brown clay		X
15	274	298	Fine-medium brown sand	X	
15	298	307	Brown clay		X
15	307	334	Fine-coarse brown sand, clay	X	X
			NOTE At 233' 15.25"x12" K Packer with 4' of 12" .25 wall SS pipe reduced at 239' to 8" SS w/ swedge on bottom to 242'. Removable packer assembly		

Completed Depth (Measurable): 333

Date Started: Jul 24, 2014

Date Completed: Sep 19, 2014

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 Co. No. 333

*Principal Driller [Signature] Date 10/13/14

*Driller [Signature] Date 10/13/14

*Operator II _____ Date _____

Operator I _____ Date _____

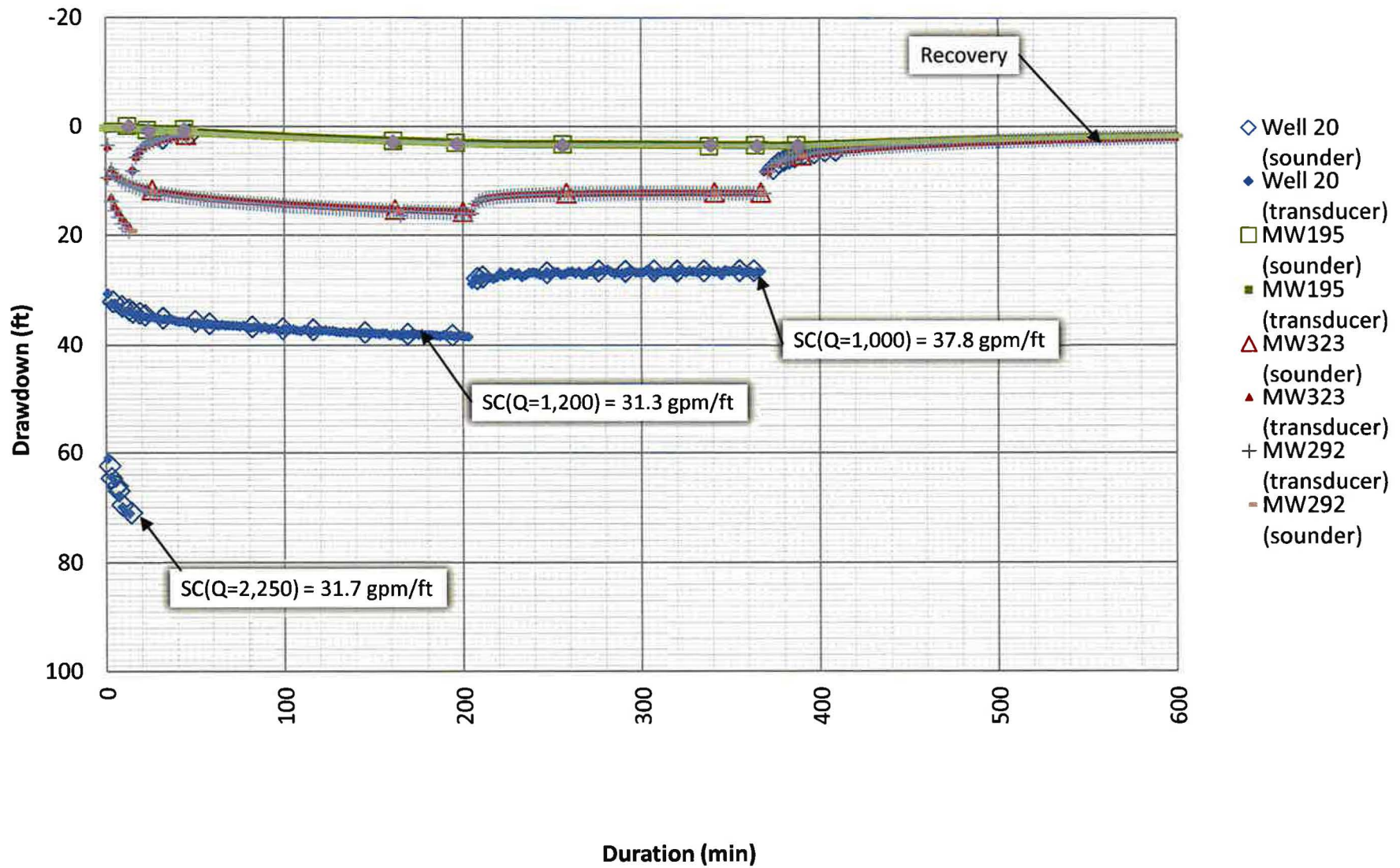
* Signature of Principal Driller and rig operator are required.

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OCT 16 2014

WATER RESOURCES

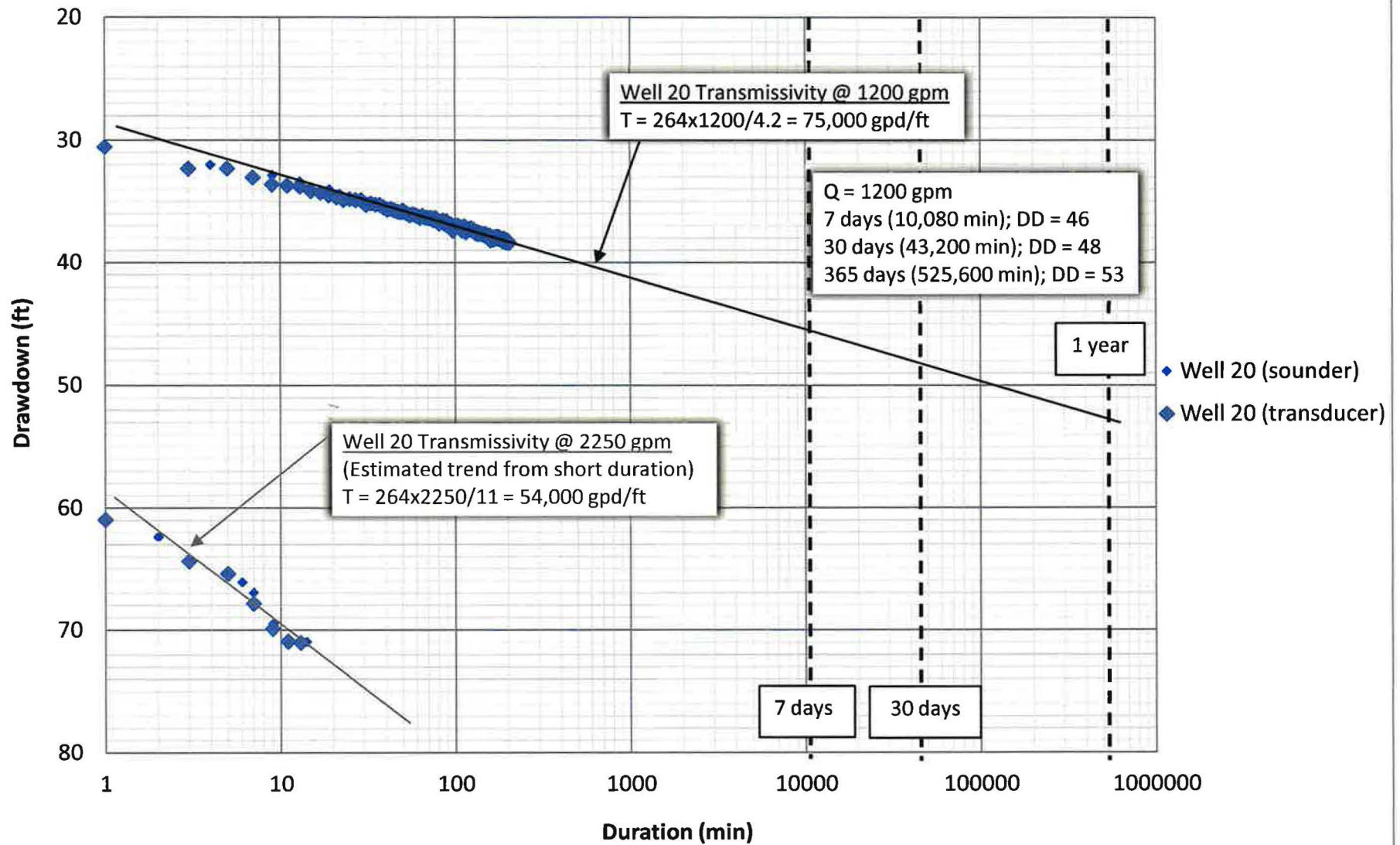
Nampa Production Well 20 Arithmetic Drawdown and Recovery September 19, 2014



Nampa Production Well 20 Pumping Test

Semi-Log Drawdown

9/19/14





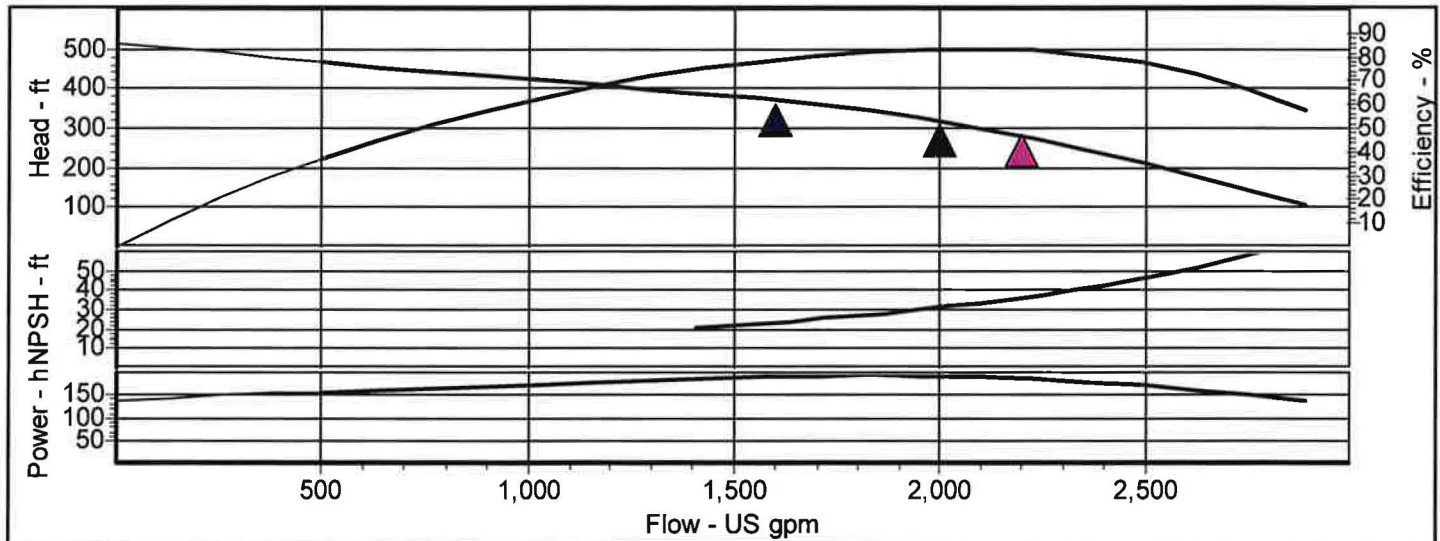
Robertson Supply , Inc
318 6th St., Nampa, Idaho 83687
Bill Wey mouth
Phone 208-484-4824

Customer : Irrminger Construction
3473 N Brookside Ln
Boise, Idaho
83714

Project : City of Nampa Well 20 Well House Improvements Project
Quote No. : US-5774-132
Page No : 5
Contact : Mr. Dan Williams
Phone :
Date : Monday, March 30, 2015
Fax :

Pump Model:	Peerless Vertical - 14HXB 6 Stages	Imp. Dia. (inch)	
Nom. Speed:	1770 RPM, 60 Hz Electric	Stage No.	Trim Status
Market :	Vertical Turbine Pump	-----	Full
Impeller No.:	V4399C / LC	-----	Full
Material Spec. Group:	A - B: CIE; I: Brz = Standard	1 - 6	Trimmed P
Item :	1		
Your Ref. :			
Fluid:	Water	Flow rate Q:	2000 US gpm
Temperature:	68 °F	Bowl Total Head:	310 ft
Viscosity:	1.007 cSt	Bowl Efficiency:	83.3 %
Sp. Gravity:	1.000 (base temp. 68 °F)	Bowl Power Required:	192.7 hp
		NPSH Required	31 ft

Performance curve according to Hyd Inst-Peerless Std



Comments

Refer to factory for all single point bowl performance guarantees. Pumps must be selected with Hydraulic Institute-Peerless Std. See Std Hydraulic Performance document in RAPID for testing tolerances & contractual guarantees.

Flow (US gpm)	Head (ft)	Efficiency (%)	Power Required (hp)	NPSH Required (ft)	Thrust (lb)
0.0	512.7	0.0	136.4		9155
361.4	481.2	28.6	153.4		8430
722.8	445.6	49.7	163.8		7458
1084.2	415.7	64.9	175.3		6694
1445.6	386.7	75.4	187.1	20.8	5862
1807.0	347.1	81.8	193.7	27.2	4712
2168.3	286.4	83.1	188.6	35.4	3334
2529.7	202.2	76.6	168.7	47.6	2046
2891.1	108.4	57.4	138.0	66.3	1029

EXAM ATTACHMENT D

PHOTOS OF THE DIVERSION WORKS



Figure 1. Housing for Well No. 20 with Transformer and Backup Generator, looking Northeast



Figure 2: North Side of Well House with Transformer, Backup Generator, & ATS, Looking West



Figure 3. Test Well, Looking North



Figure 4. Well No. 20 Vertical Turbine Pump and Motor

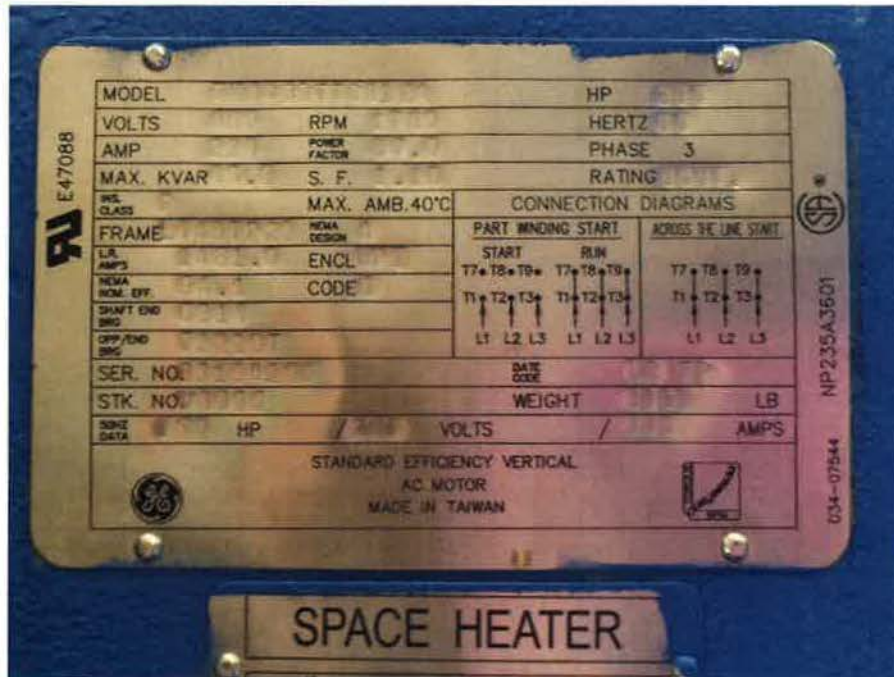


Figure 5. Pump Plate



Figure 6. Diversion Works, Looking Northwest



Figure 7. Diversion Works, Looking Northeast

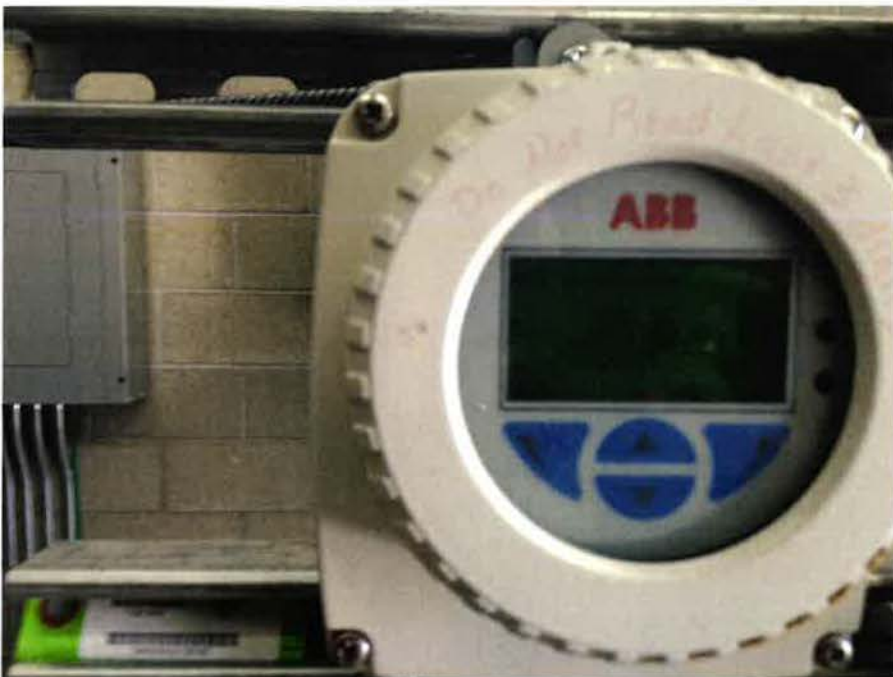


Figure 8. Flow Meter Reading #1, Approaching Peak Flow

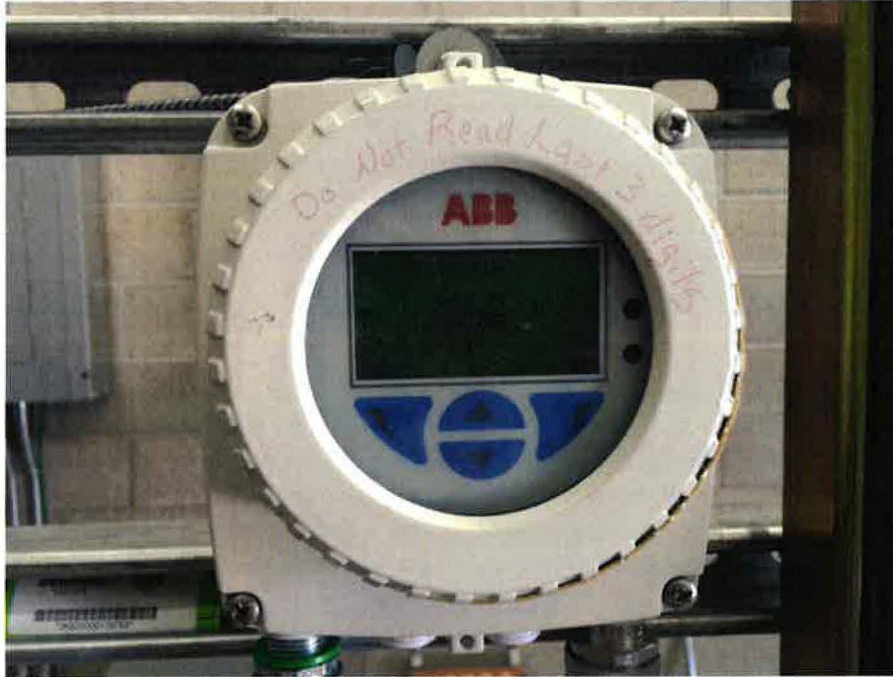


Figure 9. Flow Meter Reading #2, Approaching Peak Flow



Figure 10. Flow Meter Reading #3, Approaching Peak Flow

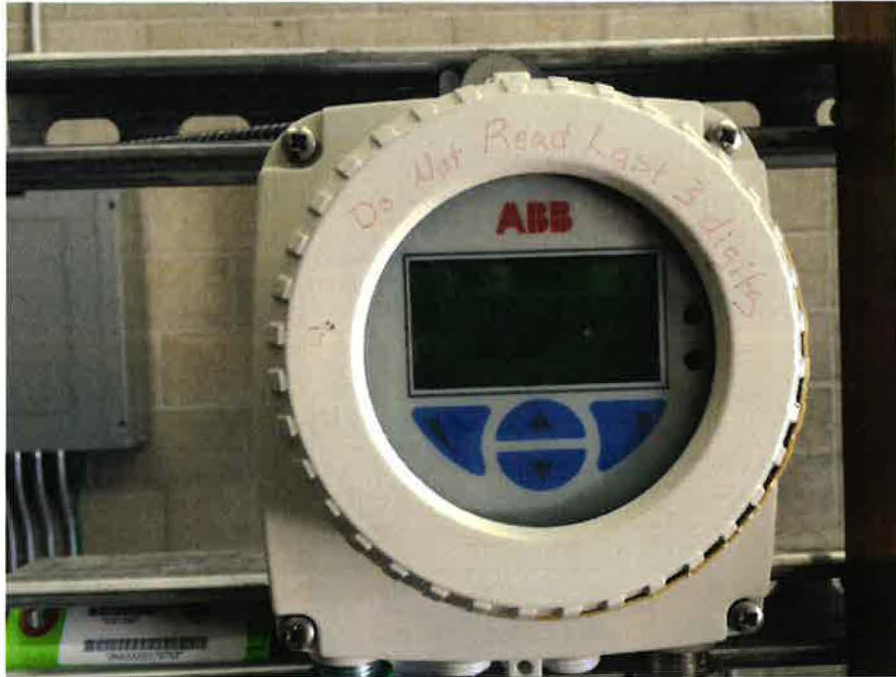


Figure 11. Flow Meter Reading #4, Approaching Peak Flow



Figure 12. Flow Meter Reading #5, Approaching Peak Flow

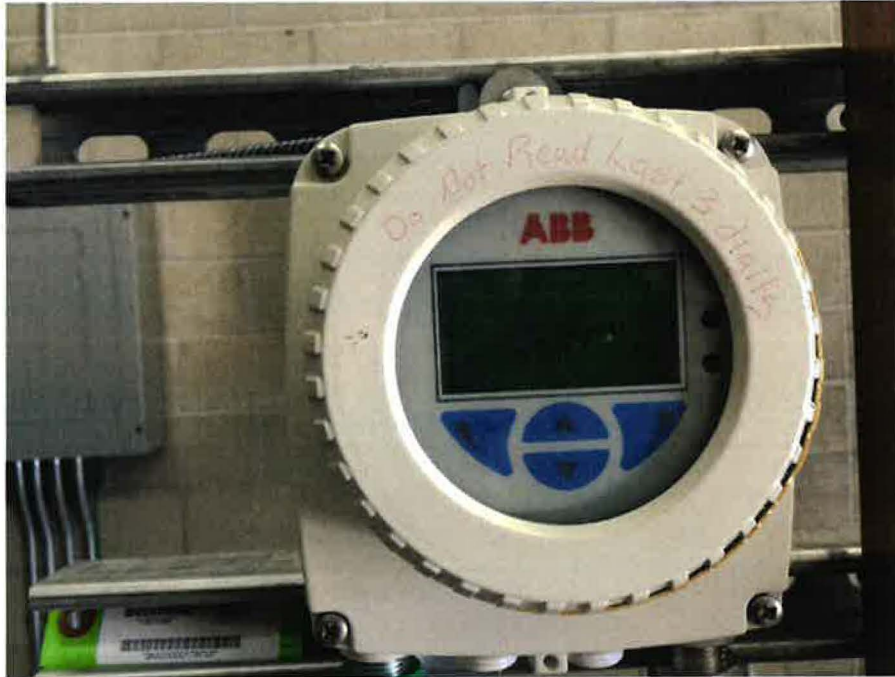


Figure 13. Flow Meter Reading #6, Approaching Peak Flow



Figure 14. Flow Meter Reading #7, Approaching Peak Flow

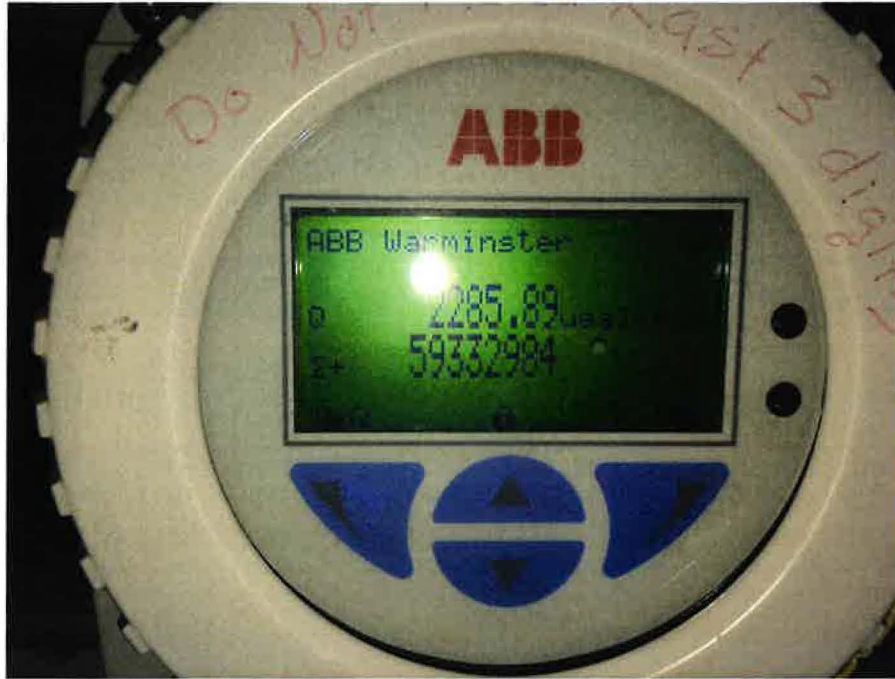


Figure 15. Flow Meter Reading at Observed Peak Flow Rate



Figure 16. Flowmeter and Chlorine Analyzer, Looking North



Figure 17. Tablet Chlorination System, Looking South



Figure 18. Controls, Looking Northwest



Figure 19. Controls, Looking North

EXAM ATTACHMENT E

FLOW MEASUREMENT RECORDS

Permit: 63-32835
Owner: City of Nampa
Site Name: Well #20 - High School Well
POD Location: 04N 02W S34 SWSWNE
Tag No: D0067289
Meter: ABB Warminster
Type: Magnetic Flowmeter
Serial Number: 3K620000179753
Field Exam Date: 4/5/2016
Examiner: Marci Pape

Date/Time	Q (gpm)	Σ + (gal)
4/5/2016 14:31	2236.96	59330765
4/5/2016 14:31	2155.22	59330875
4/5/2016 14:31	2120.55	59321635
4/5/2016 14:32	2186.29	59331886
4/5/2016 14:32	2217.55	59332070
4/5/2016 14:32	2257.92	59332182
4/5/2016 14:32	2272.50	59332794
4/5/2016 14:32	2285.89	59332984

Average Q: 2217 gpm
or 4.94 cfs