STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 36-8282
Exam Date: 6/19/2015

1. Current Owner: SARA D CRANE
270 E 577 LN N
RUPERT ID 83350
(208)532-4418

2. Accompanied by: Paul & Taylor Duncan
Phone No: 1-208-312-4800
1-208-312-4803
Address: 1404 E. 500 N.
Jackson, ID 83350
Relationship to Permit Holder: Brother of permit holder and farm operator

3. **SOURCE**
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 36-2365A, 36-2365B, 36-2473C, 36-2473D, 36-7011A, 36-7011B
2. Other water rights with the same point of diversion: same as above

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER MINIDOKA County	SW1/4SW1/4	Sec. 26, Twp 08S, Rge 24E, B.M.
GROUND WATER MINIDOKA County	SE1/4SW1/4	Sec. 26, Twp 08S, Rge 24E, B.M.

Method of Determination: GPS and aerial photography.

2.
PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
08S	24E	26			1.3	.5			.3	.3	1.0	18.0	38.0	33.0		31.0	38.0	40.0	39.0
240.4																			
						L 93			L 97	L 97		L 93		L 89	L 93		L 93	L 93	L 93
L 93																			

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
08S	24E	26									33.0	15.0		5.0					
53.0																			
											L97	L97		L93					

Total Acres: 293.4

Method of Determination:

3. _____ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.

__X__ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

__X__ Aerial Photo Attached (required for irrigation of 10+ acres).

__X__ Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Booster	Pump Serial No. or Discharge Size
A0005390 (West)	US Electric	100 HP	5K6267XH3A	N/A	8 inch
A0005330 (East)	US Electric	30 HP	RTJ4152	50 HP	8 inch

*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	Polysonic	Panametrics	PT878		277960	3/30/2015

2. Measurements: A measurement for the East Well (A0005330) was recorded on 6/19/2015. The well was running at 522.7 gpm or 1.16 cfs on a ten-minute average. WMIS records were available for the West Well. Corbin Knowles recorded a measurement on 7/4/2001 of 1077 gpm or 2.4 cfs. The two wells combined are able to pump 3.56 cfs (1.16 cfs + 2.4 cfs= 3.56 cfs). The existing water rights 36-2365A, 36-2365B, 36-2473C, 36-2473D, 36-7011A, 36-7011B appurtenant to the farm already exceed the measured rateby 0.56 cfs. (4.12cfs-3.56cfs= 0.56 cfs) The flow rate for this license was based on the IDWR standard of an inch to the acre for the remaining acres that are not covered by the existing water rights. The system is currently used to irrigate 293.4 acres. Existing water rights 36-7011A, 36-2473C and 36-2365A are for 79 acres of irrigation. 36-7011B, 36-2473D, 36-2365B are for 133 acres of irrigation leaving 81.4 acres needing to be licensed under this right. (293.4 ac-79 ac-133 ac=81.4 ac) 81.4 acres X 0.02 cfs/ac = 1.63 cfs available for this license. **Recommend the flow rate of 1.63 cfs.**

E. FLOW CALCULATIONS __X__ Additional Computation Sheets

N/A

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

Based on the 81.4 acres not covered by existing rights and IDWR standard of 4 AF/acre.

$V_{I.R.}$ = (Acres Irrigated) x (Irrigation Requirement) = 81.4 acres X 4 AF = 325.6 AF

$V_{D.R.}$ = [Diversion Rate (cfs)] x (Days in Irrigation season) x 1.9835 = 1.63 cfs X 246 days X 1.9835 = 795.3 AF

V = Smaller of $V_{I.R.}$ and $V_{D.R.}$ =

2. Volume Calculations for Other Uses: N/A

Recommend a volume of 325.6 AF for this license.

G. NARRATIVE/REMARKS/COMMENTS

Application for permit 36-8282 was filed on June13, 1985 to appropriate up to 2.0 cfs of groundwater for the irrigation of up to 108 acres on an existing farm. Proof of Beneficial use was filed on June 16, 1989.

The common system consists of two existing wells (A0005330 and A0005390), a 75 HP pump and a 100 HP pump. Measurements for both wells were obtained and total 3.56 cfs (1.16 cfs + 2.4 cfs= 3.56 cfs).

The overlapping, existing water rights 36-2365A, 36-2365B, 36-2473C, 36-2473D, 36-7011A, 36-7011B appurtenant to the farm already exceed the measured total by 0.56 cfs. (4.12cfs-3.56cfs= 0.56 cfs)

After discussion with IDWR Management it was decided to create a new permissible place of use on the farm and license the acres that are not covered by the overlapping groundwater rights. The remaining 81.4 acres will be licensed using the IDWR standard of an inch to the acre and 4 AF/ acre. **Recommend 1.63 cfs with a volume of 325.6 AF for the irrigation of 81.4 acres within the new 293.4 permissible place of use for this license.** A combined limits condition will limit the system to 4.12 cfs with a volume of 1173.6 AF and the irrigation of 293.4 acres.

Note, that this farm is within the A & B Irrigation District service area and is located in an area where sections are divided up by tracts rather than quarter-quarter descriptions. The place of use needs to be identified by quarter-quarter descriptions for the Department's various Workflow processes. Southern Regional Manager, Allen Merritt provided estimated quarter-quarter lines within the place of use so that acre amounts could be determined. Also note that the tracts within the place of use have been identified as government lots with a corresponding condition that identifies the government lot with its corresponding tract designation.

Have conditions of permit approval been met? __X__Yes _____No

H. RECOMMENDATIONS

1. Recommended Amounts

BENEFICIAL USE	PERIOD OF USE	DIVERSION RATE	ANNUAL VOLUME
IRRIGATION	03/15 to 11/15	1.630 CFS	325.60 AF
	Totals:	1.630 CFS	325.60 AF

2. Recommended Amendments

___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

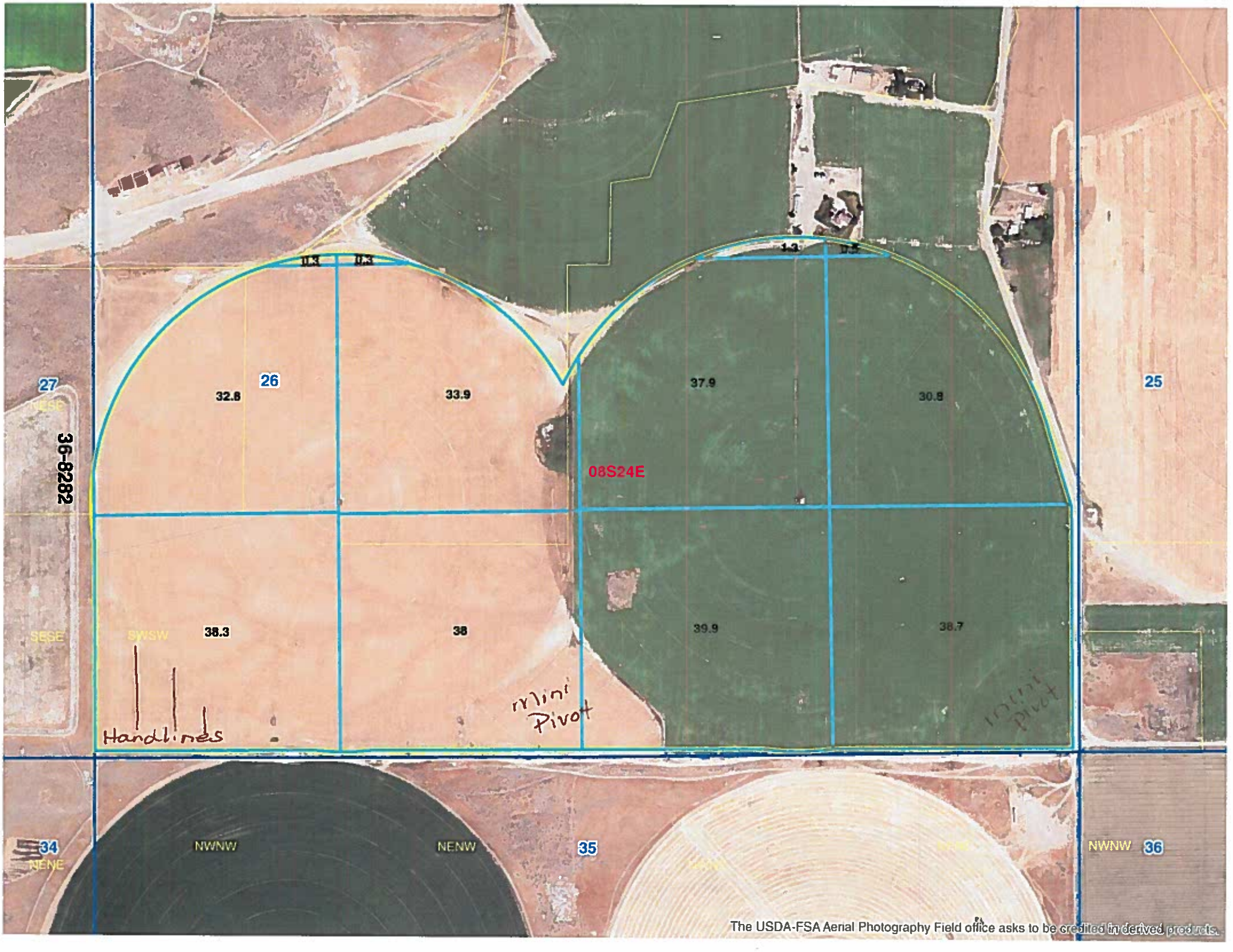
I. AUTHENTICATION

Field Examiner's Name Sara Reeder

Date 8/11/15

Reviewer Douglas Force

Date 10/5/15



27
NESE
36-8282
26
32.8
33.9
0.3
0.3
37.9
30.8
1.3
0.5
25
08S24E
SESE
SWSW
38.3
38
39.9
38.7
Handlines
Mini Pivot
Mini Pivot
34
NENE
NWNW
NENW
35
NWNW
36
The USDA-FSA Aerial Photography Field office asks to be credited in derived products.

WEST WELL - ROGER CRANE

UNIDENTIFIED

36-8282

Taylor
312-4803

Idaho Department of Water Resources

WMIS
Water Management Information System

312-4800
Paul Duncan
1404 E 500 N
Jackson, Id. 83350

Quick Search:

For assistance, email WMIS Info

Search Method: Contact
First Name
Last Name crane
Organization

Search

You are logged in as Guest

Point Of Diversion | PCC | Flow Meter | Time Clock | Alternate Contacts | Data Summary | Other | Logout

needs measured

Flow Meter Water Usage

You are viewing 100752, A0005330

Report Year	Totalizer Start	Acre Feet Volume	Max Flow Rate (CFS)	Comments
2012	69.50	60.78		
Validated	**Totalizer End**	**Adjusted Acre Feet**	**Adjusted Max Flow Rate**	
	130.28	60.78		
Calibration Data		**Acre Feet Qualifier**	**Preferred Method**	
Date: 7/21/2010 12:00:00 AM		Monthly Recordings	FM	
Factor 1.00				
Vol. Multiplier: 1.0000				
Vol. Unit AF				

Report Year	Totalizer Start	Acre Feet Volume	Max Flow Rate (CFS)	Comments
2011	6.15	63.35	0.00	
Validated	**Totalizer End**	**Adjusted Acre Feet**	**Adjusted Max Flow Rate**	
	69.50	63.35	0.00	
Calibration Data		**Acre Feet Qualifier**	**Preferred Method**	
Date: 7/21/2010 12:00:00 AM		No Monthly Recordings	FM	
Factor 1.00				
Vol. Multiplier: 1.0000				
Vol. Unit AF				

Report Year	Totalizer Start	Acre Feet Volume	Max Flow Rate (CFS)	Comments
2010		6.15		0281967 serial
Validated	**Totalizer End**	**Adjusted Acre Feet**	**Adjusted Max Flow Rate**	
	6.15	6.15		
Calibration Data		**Acre Feet Qualifier**	**Preferred Method**	
Date: 7/21/2010 12:00:00 AM		No Monthly Recordings		
Factor 1.00				

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Vol. Multiplier: 1.0000
Vol. Unit AF

Report Year	Totalizer Start	Acre Feet Volume	Max Flow Rate (CFS)	Comments
2001	102163000.00			
Validated	**Totalizer End**	**Adjusted Acre Feet**	**Adjusted Max Flow Rate**	
Validated by IDWR				
Calibration Data		**Acre Feet Qualifier**	**Preferred Method**	

Report Year	Totalizer Start	Acre Feet Volume	Max Flow Rate (CFS)	Comments
2000	7331000.00	291.03		
Validated	**Totalizer End**	**Adjusted Acre Feet**	**Adjusted Max Flow Rate**	
Validated by IDWR	102163000.00	291.03		
Calibration Data		**Acre Feet Qualifier**	**Preferred Method**	
		Full Year Estimate		

Report Year	Totalizer Start	Acre Feet Volume	Max Flow Rate (CFS)	Comments
1999		0.00		
Validated	**Totalizer End**	**Adjusted Acre Feet**	**Adjusted Max Flow Rate**	
Validated by IDWR				
Calibration Data		**Acre Feet Qualifier**	**Preferred Method**	
		Zero Pumpage		

Comments:
SNSP 4861, Water velocity 4.15 fps, signal 56 up and dn. CRK 7.22.10

Calibration Confidence: FAIR

Installed Meter Information:

Manufacturer:	SEAMETRICS	**Installation Date:**	05/15/2010
Model Number:	AG2000	**Serial Number:**	02081968
Meter Type:	MAGNETIC, FULL PROFILE	**Other Well:**	

Calibration Date/Time: 06/18/2008 **Factor:** 0.92

Installed Meter Data:		**Standard Meter Data:**	
Installed Meter Flow:	900.00	**Standard Meter Flow:**	825.00
Rate Unit:	GPM	**Rate Unit:**	GPM
Rate Multiplier:	1.0000	**Pipe Material:**	STEEL
Volume Multiplier:	1000.0000	**Outside Diameter (inches):**	10.04
Volume Unit:	GAL	**Wall Thickness (inches):**	0.16
Location:	GOOD	**Downstream Distance (feet):**	0.00
Comments:		**Upstream Distance (feet):**	1.00
		Calibration Confidence:	FAIR

Installed Meter Information:

Manufacturer:	MASTER	**Installation Date:**	
Model Number:	SLV 8"	**Serial Number:**	1706485
Meter Type:		**Other Well:**	

Calibration Date/Time: 06/16/2005 **Factor:** 0.88

Installed Meter Data:		**Standard Meter Data:**	
Installed Meter Flow:	895.00	**Standard Meter Flow:**	787.00
Rate Unit:	GPM	**Rate Unit:**	GPM
Rate Multiplier:		**Pipe Material:**	STEEL
Volume Multiplier:	1000.0000	**Outside Diameter (inches):**	8.67
Volume Unit:	GAL	**Wall Thickness (inches):**	0.34
Location:	GOOD	**Downstream Distance (feet):**	0.00
Comments:		**Upstream Distance (feet):**	0.00
13.7%		**Calibration Confidence:**	POOR

Installed Meter Information:

Manufacturer:	SLV-MASTER METER	**Installation Date:**	
Model Number:		**Serial Number:**	1706485
Meter Type:	VENTURI	**Other Well:**	

Calibration Date/Time: 07/04/2001 **Factor:** 1.00

Installed Meter Data:		**Standard Meter Data:**	
Installed Meter Flow:	1075.00	**Standard Meter Flow:**	1077.00
Rate Unit:		**Rate Unit:**	GPM
Rate Multiplier:		**Pipe Material:**	STEEL
Volume Multiplier:	1000.0000	**Outside Diameter (inches):**	10.03
Volume Unit:	GAL	**Wall Thickness (inches):**	0.22
Location:	GOOD	**Downstream Distance (feet):**	0.00
Comments:		**Upstream Distance (feet):**	0.00
		Calibration Confidence:	EXCL

Installed Meter Information:

Manufacturer:	SLV-MASTER METER	**Installation Date:**	
Model Number:	8" SLV	**Serial Number:**	1706485
Meter Type:	VENTURI	**Other Well:**	

Calibration Date/Time: 06/30/1998 **Factor:** 0.97

Installed Meter Data:		**Standard Meter Data:**	
Installed Meter Flow:		**Standard Meter Flow:**	
Rate Unit:		**Rate Unit:**	
Rate Multiplier:		**Pipe Material:**	
Volume Multiplier:	1000.0000	**Outside Diameter (inches):**	
Volume Unit:	GAL	**Wall Thickness (inches):**	
Location:		**Downstream Distance (feet):**	
Comments:		**Upstream Distance (feet):**	
		Calibration Confidence:	

Installed Meter Information:

Manufacturer:	SLV-MASTER METER	**Installation Date:**	
Model Number:	8" SLV	**Serial Number:**	1706485
Meter Type:	VENTURI	**Other Well:**	

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Log Name	D0066574
Log Title	Crane 36-8282
Start Time	6/16/2015 12:08
End Time	6/16/2015 12:19
Records	3
Interval	60
Error Flags	8208
Cyclic Flags	2

Item #	Label	Symbol	UnitType	Channel
0	Velocity	ft/s	578	0
1	Volume	gal/m	846	0
2	(+)Total	gal	1160	0

Date/Time	Velocity (ft/s)	Volume (gal/m)	(+)Total (gal)	Error #
6/16/2015 12:08:04	3.722006151	535.1783349	23746.04609	0
6/16/2015 12:09:04	3.797787304	546.0747251	24261.46117	0
6/16/2015 12:10:06	3.58593875	515.6135298	24777.56746	0
6/16/2015 12:11:04	3.649567932	524.7626173	25301.91448	0
6/16/2015 12:12:04	3.689873567	530.5580678	25826.29311	0
6/16/2015 12:13:05	3.706851124	532.9992299	26351.87719	0
6/16/2015 12:14:04	3.62455165	521.1655861	26877.96054	0
6/16/2015 12:15:04	3.660923736	526.3954411	27397.46214	0
6/16/2015 12:16:05	3.675679364	528.5171173	27916.31986	0
6/16/2015 12:17:04	3.680306787	529.1824834	28447.4749	0
6/16/2015 12:18:04	3.675009186	528.4207542	28973.82238	0

522.7776292

522.8 gpm