

A.C. SCHULTES OF CAROLINA, INC.
PUMP TEST DATA

Pre Development

Customer:		City of Georgetown			Job Number:		C-0586	
Location:		Whitesbridge Drive			Well Number:		King Well	
Date:		4/15/15			Diameter:		16 x 8	
Static Water Level:		168			Depth:		769 feet	
Capacity Measured By:		orifice			Datum:		6" from ground level	
Time Test Started:					Duration of Test:		2 hours	
Time	Capacity	Disch. Pressure	Pumping Level	Draw Down	Specific Capacity Gal./Ft.	Volts	Amps	Remarks
1 Min	150		192	24	4075			
2 Min	150		198	30	5			
3 Min	150		205	37	4.05405			
4 Min	150		210.42	42.42	3.53607			
5 Min	150		214.58	46.58	3.22027			
6 Min	150		217.16	49.16	3.05126			
7 Min	150		216.5	48.5	3.09278			
8 Min	150		222	54	2.77778			
9 Min	150		223.83	55.83	2.68673			
10 Min	150		225	57	2.63158			
12 Min	150		230	62	2.41935			
14 Min	150		232.83	64.83	2.31374			
16 Min	150		235.5	67.5	2.22222			
18 Min	150		236.92	68.92	2.17644			
20 Min	150		238	70	2.14286			
22 Min	150		238.42	70.42	2.13008			
24 Min	150		240.66	72.66	2.06441			
26 Min	150		241.5	73.5	2.04082			
28 Min	150		242	74	2.02703			
30 Min	150		243	75	2			
35 Min	150		245	77	1.94805			
40 Min	150		246.5	78.5	1.91083			
45 Min	150		248.5	80.5	1.86335			
50 Min	150		249.5	81.5	1.84049			
55 Min	150		250.83	82.83	1.81094			
60 Min	150		241.5	73.5	2.04082			1 Hour

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Time	Capacity	Disch. Pressure	Pumping Level	Draw Down	Specific Capacity Gal./Ft.	Volts	Amps	Remarks
70 Min	100		241.83	73.83	1.35446			
80 Min	100		239	71	1.40845			
90 Min	100		238	70	1.42857			
100 Min	100		238.33	70.33	1.42187			
110 Min	100		238.42	70.42	1.42005			
120 Min	100		238.75	70.75	1.41343			
140 Min								
160 Min								
180 Min								
200 Min								
220 Min								
240 Min								4 Hours
270 Min								
300 Min								
330 Min								
360 Min								
390 Min								
420 Min								
450 Min								
480 Min								8 Hours
510 Min								
540 Min								
570 Min								
600 Min								
630 Min								
660 Min								
690 Min								
720 Min								
750 Min								
780 Min								

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PUMP TEST DATA

Post Development

Customer:		City of Georgetown			Job Number:		C-0586	
Location:		King Well			Well Number:		King Well	
Date:		4/29/15			Diameter:		16 x 8	
Static Water Level:		166.08			Depth:		769 feet	
Capacity Measured By:		orifice			Datum:		12" from GL	
Time Test Started:		6:00 AM			Duration of Test:		4 hour	
Time	Capacity	Disch. Pressure	Pumping Level	Draw Down	Specific Capacity Gal./Ft.	Volts	Amps	Remarks
1 Min	150		185.92	19.84	7.56048			
2 Min	150		194.75	28.67	5.23195			
3 Min	150		201.42	35.34	4.24448			
4 Min	150		209.08	43	3.48837			
5 Min	150		212.83	46.75	3.20856			
6 Min	150		216.92	50.84	2.95043			
7 Min	150		220.42	54.34	2.7604			
8 Min	150		222.92	56.84	2.63899			
9 Min	150		224.5	58.42	2.56761			
10 Min	150		227	60.92	2.46225			
12 Min	150		230.33	64.25	2.33463			
14 Min	150		233.33	67.25	2.23048			
16 Min	150		235.25	69.17	2.16857			
18 Min	150		235.58	69.5	2.15827			
20 Min	150		237.83	71.75	2.09059			
22 Min	150		239.5	73.42	2.04304			
24 Min	150		240.83	74.75	2.00669			
26 Min	150		242	75.92	1.97576			
28 Min	150		243.42	77.34	1.93949			
30 Min	150		244.58	78.5	1.91083			
35 Min	150		246.42	80.34	1.86706			
40 Min	150		247.75	81.67	1.83666			
45 Min	150		248.92	82.84	1.81072			
50 Min	150		251.16	85.08	1.76305			
55 Min	150		252.33	86.25	1.73913			
60 Min	150		253.42	87.34	1.71743			1 Hour

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Time	Capacity	Disch. Pressure	Pumping Level	Draw Down	Specific Capacity Gal./Ft.	Volts	Amps	Remarks
70 Min	150		255.08	89	1.68539			
80 Min	150		255.92	89.84	1.66963			
90 Min	150		257.5	91.42	1.64078			
100 Min	150		258.25	92.17	1.62743			
110 Min	150		259.08	93	1.6129			
120 Min	150		261.92	95.84	1.56511			
140 Min	150		264	97.92	1.53186			
160 Min	150		265.08	99	1.51515			
180 Min	150		265.92	99.84	1.5024			
200 Min	150		266.58	100.5	1.49254			
220 Min	150		267	100.92	1.48633			
240 Min	150		267.16	101.08	1.48397			4 Hours
270 Min								
300 Min								
330 Min								
360 Min								
390 Min								
420 Min								
450 Min								
480 Min								8 Hours
510 Min								
540 Min								
570 Min								
600 Min								
630 Min								
660 Min								
690 Min								
720 Min								
750 Min								
780 Min								

A.C. Schultes of Carolina, Inc.

TELEVISION INSPECTION REPORT

Customer: Georgetown Job No: C-0586
 Location: Georgetown
 Well No: King Well Date: 5/4/15

Reference
 Point: Ground

Static
 Level: 161

Well
 Diameter: 16 X 8

Well
 Depth: 750?

Depth of
 L, R or
 Reduction: 485'

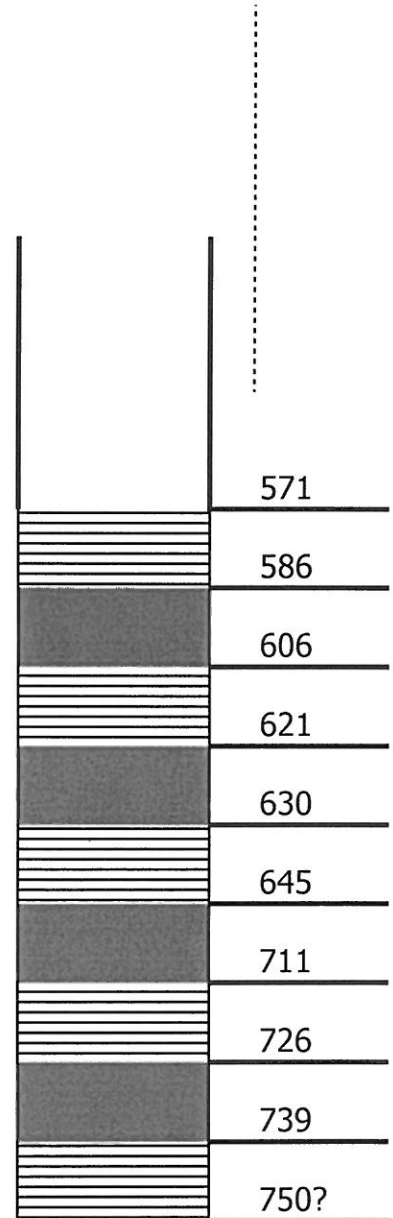
Depth to
 Top of
 Screen: 571'

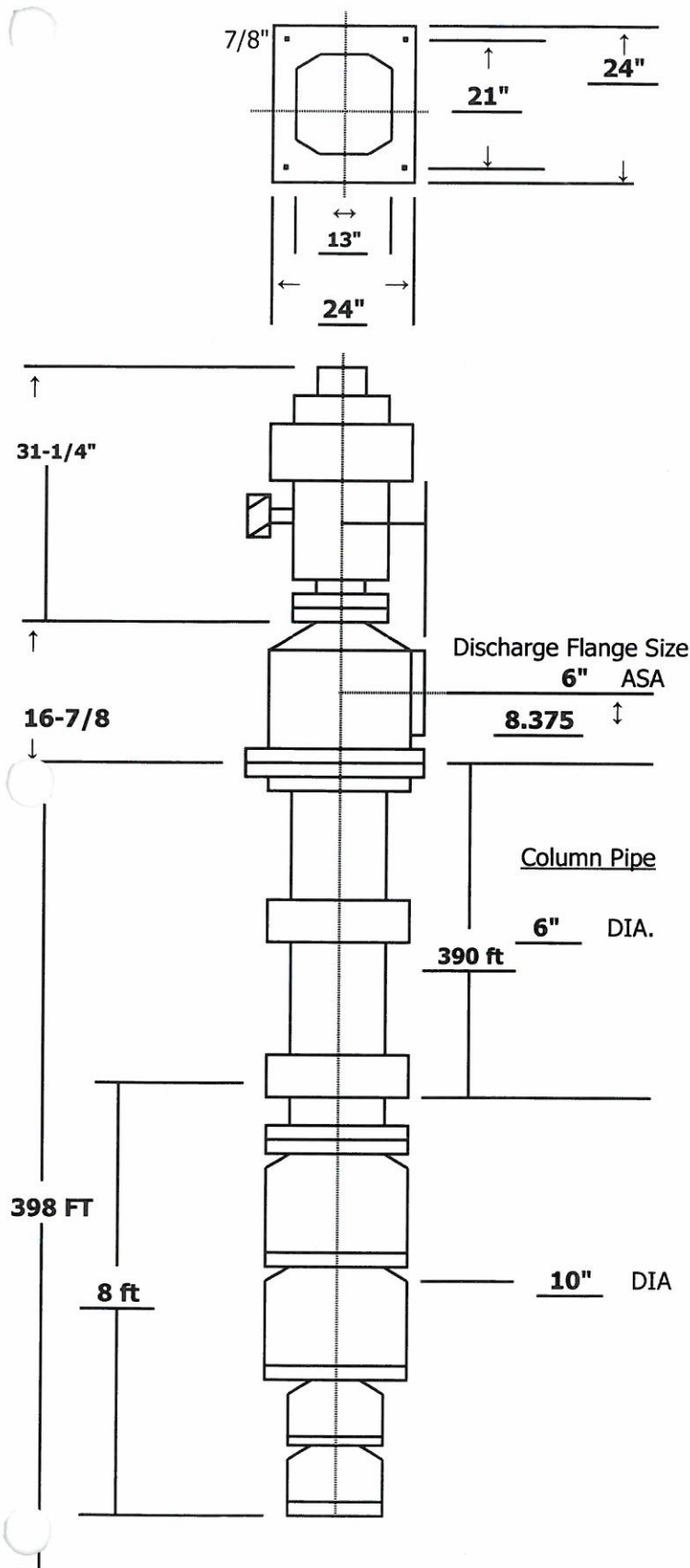
Depth to
 Bottom of
 Screen: 750'

Water
 Source: Garden Hosed

Other
 Comments: 571-586, 606-621, 630-645, 711-726,
739-750?

Well Sketch





MATERIAL OF CONSTRUCTION

Bowl	C.I.	Impeller	BRONZE
Bowl Shaft	416 SS	Shaft Coupling	416 SS
Bowl Bearing	BRONZE	Shaft Bearing	BRONZE
Strainer	416 SS	Bowl W/R	N/A
Impeller W/R	N/A	Column Pipe	STEEL
Lineshaft	C-1045	Packing	GRAPHITE
Base Plate	STEEL	Head	C.I.
PUMP			
		Discharge Head	TRB6
Suction	6"	Discharge	6"
Lineshaft	1-1/4"	Column	6"
Lubrication	WATER	Model	10 JC
Stage	10	GPM	300
TDH	500	Trim	7.725
RPM	1800	BHP	50.2
MOTOR			
Make	US	Type	VERTICAL
Enclosure	WPI	NRR	YES
SRC	N/A	HP	60
RPM	1800	Phase	3
Hertz	60	Voltage	460
Frame No.	RU	Type Coupling	N/A
OTHER SPECIFICATIONS			
Drawing No.		Serial No.	
Fluid	WATER	Spec. Gravity	
Viscosity		Temperature	
PH		No. Units Req'd.	1

Customer	CITY OF GEORGETOWN
Address	416 WHITE BRIDGES DRIVE
PUMP #	KINGS WELL PUMP
City, ST, Zip	GEORGETOWN, S.C.
Tel. #	843- 545-4504

Rep.	A.C. Schultes of Carolina, Inc.
Address	3887 South NC 41
City, ST, Zip	Wallace, NC 28466
Tel. / Fax	910-285-7465 / 910-285-6501
Supplier	AMERICAN MARSH

Company: American-Marsh Pumps

GEORGETOWN KINGS WELL

Name:

Date: 5/11/2015



Pump:

Size: 10JC (10 stage)
 Type: 480_VRT-TURBINE/ENCL
 Synch speed: 1800 rpm
 Curve: 3094
 Specific Speeds:
 Dimensions:
 Vertical Turbine:
 Speed: 1760 rpm
 Dia: 7.725 in
 Impeller:
 Ns: 1610
 Nss: 6853
 Suction: 6 in
 Discharge: 6 in
 Bowl size: 9.5 in
 Max lateral: 0.5 in
 Thrust K factor: 3.98 lb/ft

Search Criteria:

Flow: 300 US gpm
 Head: 500 ft
 Fluid:
 Water
 Density: 62.25 lb/ft³
 Viscosity: 1.105 cP
 NPSHa: --- ft
 Temperature: 60 °F
 Vapor pressure: 0.2563 psi a
 Atm pressure: 14.7 psi a

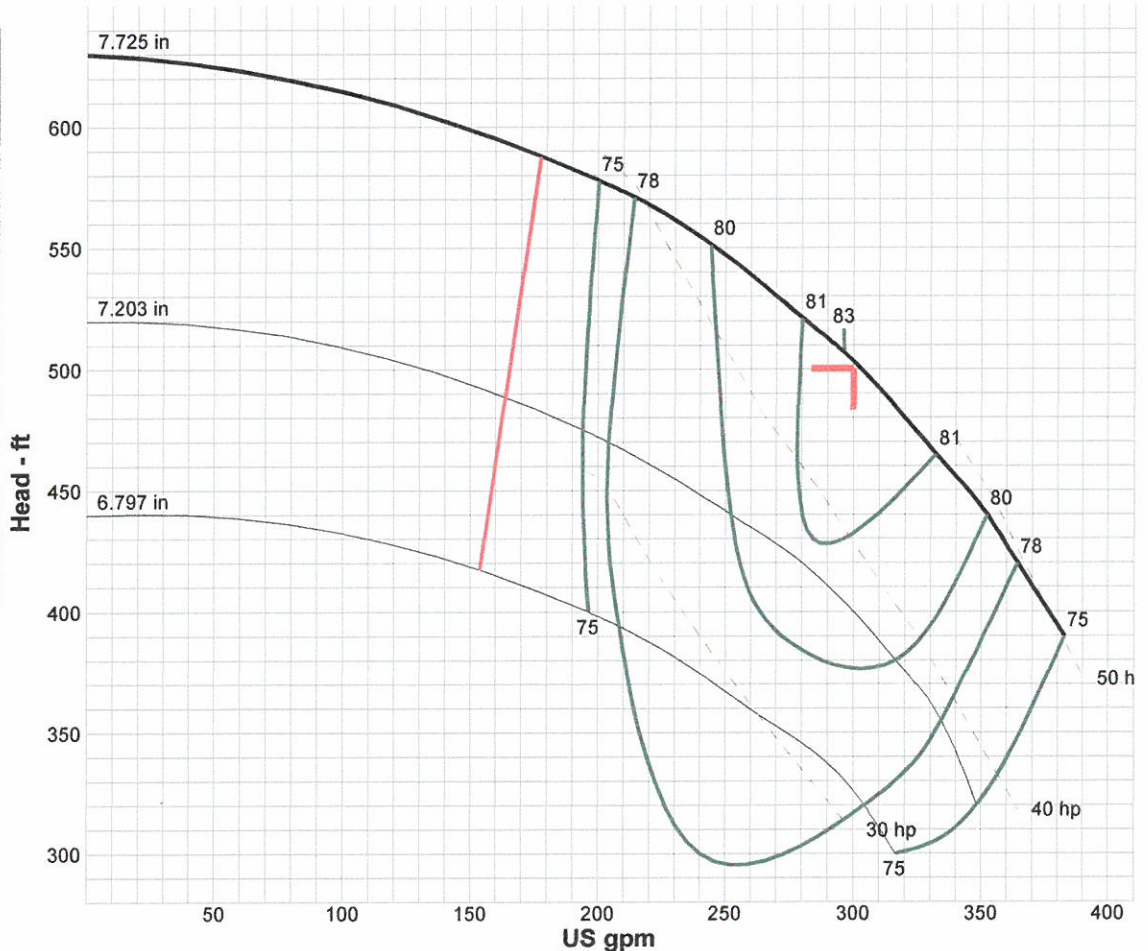
Motor:

Standard: NEMA
 Enclosure: TEFC
 Sizing criteria: Max Power on Design Curve
 Size: 60 hp
 Speed: 1800
 Frame: 364T

Pump Limits:

Temperature: 250 °F
 Pressure: 595 psi g
 Sphere size: 0.438 in
 Power: 200 hp
 Eye area: --- in²

---- Data Point ----	
Flow:	300 US gpm
Head:	502 ft
Eff:	83%
Power:	45.9 hp
NPSHr:	7.31 ft
---- Design Curve ----	
Shutoff head:	630 ft
Shutoff dP:	272 psi
Min flow:	178 US gpm
BEP:	83% @ 296 US gpm
NOL power:	50.2 hp @ 382 US gpm
-- Max Curve --	
Max power:	50.2 hp @ 382 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
360	1760	427	79	49.3	8.93
300	1760	502	83	45.9	7.31
240	1760	554	80	42.1	5.91
180	1760	583	71	38	4.57
120	1760	---	---	---	---

A.C. SCHULTES, INC.

CUSTOMER: Georgetown
3: Kings Well C-0586

LOCATION: 416 Whites Bridge Drive WATER SUPERINTENDENT: Will Cook
Georgetown Georgetown SC PHONE: 843-545-4505 FAX: _____

CITY COUNTY STATE

BUILDING HEIGHT: N/A OVERHANG: N/A OAKS (Y/N) _____ AMOUNT REQUIRED: _____

ACCESS: Grass Field

WELL			
PERMIT # _____			
DEPTH:	<u>756'</u>	FT.	_____ IN
DIAMETER	<u>16" X 8"</u>		_____ IN
GPM:	<u>300</u>		
STATIC:	<u>166</u>	FT.	_____ IN
P.L.:	<u>367</u>	FT.	_____ IN
D.D.:	<u>201</u>	FT.	_____ IN
SPECIFIC CAPACITY:	<u>1.49</u>	GPM/FT.DD	

PUMP			
MANUF:	<u>AMERICAN MARSH</u>	CAPACITY	<u>300</u>
MODEL:	<u>10 JC -10 STAGE</u>	TDH:	<u>500</u>
IMP. DIAM:	<u>7.725</u>	IN	C/F: _____
INLET SIZE:	<u>6"</u>	IN	S/T/F: <u>S</u>
OUTLET SIZE:	<u>6"</u>	IN	S/T/F: <u>S</u>
STICKUP:	<u>7 1/2</u>	IN	
SUCT PIPE DIAM:	<u>0</u>	IN	LENGTH: _____
SERIAL #	<u>208079</u>		

COLUMN ASSEMBLY			
PIPE DIAM:	<u>6"</u>	IN	EPOXY _____
LENGTH:	<u>10</u>	FT	NO: <u>38</u>
S/T/F:	<u>S</u>		FLG OD _____
# BOLTS	_____	EA	SIZE: _____
SHORT COL. LENGTH TOP:	<u>4-11 1/4</u>	FT	
SHORT COL. LENGTH BOT:	<u>4-11.25</u>	FT	
HEAD SHAFT LENGTH:	<u>39.5</u>	IN	DIA: <u>1-1/2 TO 1-1/4</u>
KEYWAY:	<u>3/8"</u>	IN	
NO 10' LINESHAFTS:	<u>38</u>	EA	DIA: <u>1-1/4"</u>
TYPE OF MATERIAL:	<u>C-1045</u>		
SHORT LINE SHAFT LENGTH TOP:	<u>63.5</u>	IN	
SHORT LINE SHAFT LENGTH BOTTOM:	<u>60</u>	IN	

MOTOR			
MANUF:	<u>US Motors</u>		
MODEL:	<u>BF59</u>	TYPE:	<u>RU</u>
SERIAL #:	<u>U107575412-0027H0007</u>	FRAME	<u>366 TP</u>
HP:	<u>60</u>	RPM:	<u>1775</u>
VOLTS:	<u>230/460</u>	AMPS:	<u>166/83</u>
PHASE:	<u>3</u>	M/BEARING # UPPER:	<u>7220 BEP</u>
RATCHET:	<u>YES</u>	M/BEARING # LOWER:	<u>6211 J</u>
CD DIM :	<u>31</u>	IN	NEMA: _____ IN
MOTOR ADAPT PLATE (Y/N)	<u>N</u>	SIZE:	_____ IN
WIRE SIZE:	_____		

STARTER	
MANUFACTURER:	<u>Square D</u>
TYPE:	<u>Voltage Red</u>
SIZE:	<u>5</u>
HEATER	
MANUFACTURER:	<u>No Heater, (VFD)</u>
SIZE:	_____

DISCHARGE HEAD			
MANUF:	<u>AMERICAN MARSH</u>		
MODEL:	<u>TRB 6</u>		
"E" DIMEN:	<u>11 1/2"</u>	IN	"H" DIMEN: <u>16 7/8"</u> IN
"F" DIMEN:	<u>8-3/8"</u>	IN	"R" DIMEN: <u>19"</u> IN
TOP COLUMN CONNECTION S/T/F:	_____		

FOUNDATION PLATE: (Y/N)			
SIZE:	<u>24</u>	X	<u>24</u> IN
THICKNESS:	<u>1</u>	IN	

LENGTH & SIZE OF M SCOPE TUB 3/4" POLY 390 FT

CHECKVALVE N STRAINER: Y