

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-12530

Exam Date: 8/10/2011

1. Current Owner: JOSEPH E GALLIA
4082 N PTARMIGAN PL
STAR ID 83669
(208)286-9346

AND/OR

LAURA H GALLIA
4082 N PTARMIGAN PL
STAR ID 83669
(208)286-9346

2. Accompanied by: Bill Gallia and Angie Grimm (IDWR)

Phone No: 401-6308

Address: 4082 N Ptarmigan Pl, Star, ID 83669

Relationship to Permit Holder: Son

3. SOURCE TRIBUTARY

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None
2. Other water rights with the same point of diversion: None

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT OF DIVERSION:**

GROUND WATER SW1/4NW1/4 Sec. 32, Twp 05N, Rge 01W, B.M., ADA County

Method of Determination: GPS, Field Examination, Driller's log

2.

PLACE OF USE: IRRIGATION

TwpRgeSec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
05N01W32							5.0										5.0

Total Acres: 5

Method of Determination: Field examination

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
☒ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
☒ Aerial Photo Attached (required for irrigation of 10+ acres).
☒ Photo of Diversion and System Attached

4.

<u>Well or Diversion</u> <u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge</u> <u>Size</u>
	Franklin Electric	7.5	OJA19-18-0218	4" Goulds Pump End	Model 40GS75

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

D. FLOW MEASUREMENTS

1.

<u>Measurement</u> <u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

2. Measurements

No measurement made. Sprinklers were running but the holes in them were so large the pitot tubes could not capture the water.

E. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

Measured Method:

Pump Curve 57 or 58 gpm = 0.13 cfs

Theoretical = Known: 7.5 hp pump, 52 psi, 340' from well log (use 330')

$$Q = \frac{8.8 \times \text{HP} \times .70}{\text{TDH}}$$

$$Q = \frac{8.8 \times 7.5 \times .70}{330' + (2.31 \times 52)} = 0.10 \text{ cfs}$$

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 5 \text{ acres} \times 4.5 \text{ af} = 22.5 \text{ afa}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.10 \times 1.9835 \times 260 = 51.6 \text{ afa}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 22.5 \text{ afa}$$

2. Volume Calculations for Other Uses: n/a

G. NARRATIVE/REMARKS/COMMENTS

System was in use while we were present. All pipelines in lawn were buried. They normally run 5 sprinkler lines (1" pipe) with 4 heads per line when irrigating pasture. The sprinkler heads were Rainbirds Falcon 1" #6504. All yard irrigation and portion of pasture from this system.

The well also provides domestic water and water for a small pond behind home. Domestic use exempt from water right requirements.

Place of use aka Lots 1 & 2, **Chukar** Point Subdivision.

Discussed condition regarding mitigation water with Mr. Gallia. Advised they will have to obtain storage water before irrigating next season.

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

Mr. Ray (original permit holder) had leased 60 af of storage water for 10 years in November of 2001. The permit holder will need to obtain more storage water for the 2012 irrigation season. Rt. under this 60 acre feet lease are: 63-12527 and 63-12530 – all others have been lapsed or withdrawn. This right = 5 ac x 3.5 af consumptive use = 17.5 af

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/01 to 11/15	0.100 CFS	22.5 AFA
<u>Totals:</u>		0.100 CFS	22.5 AFA

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 Ray Walker Date 9-1-2011

Reviewer _____ Date _____

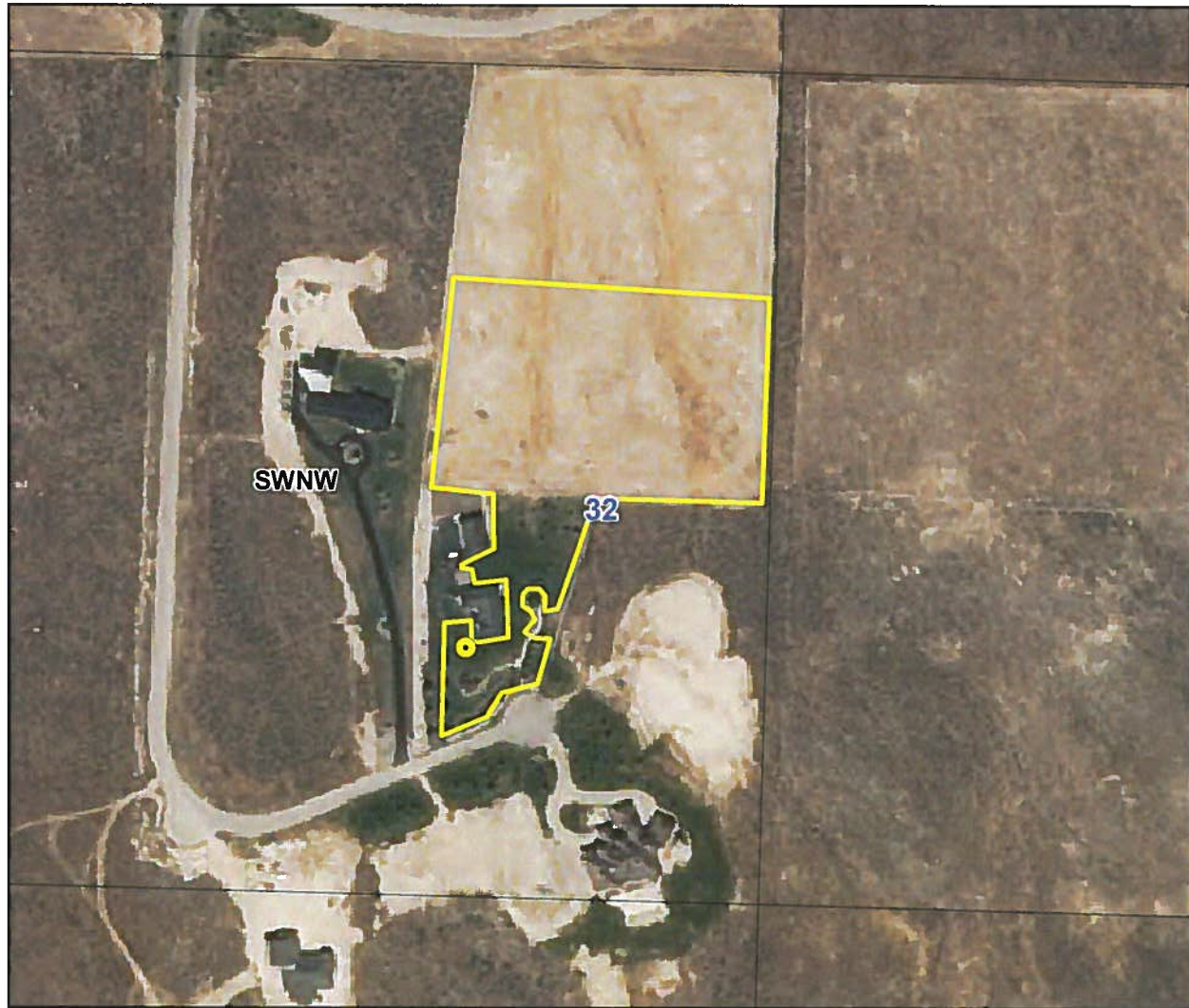
State of Idaho
Department of Water Resources
Water Right License

63-12530

Water Service Area Boundary for Joseph E Gallia

R01W

T05N



0 0.0375 0.075 0.15 Miles

Legend

- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections
- Quarter Quarters



Field Exam 63-12530
August 10, 2011
Exam by Kay Walker
Photos by Angie Grimm



Permit 63-12530 – Well with well tag

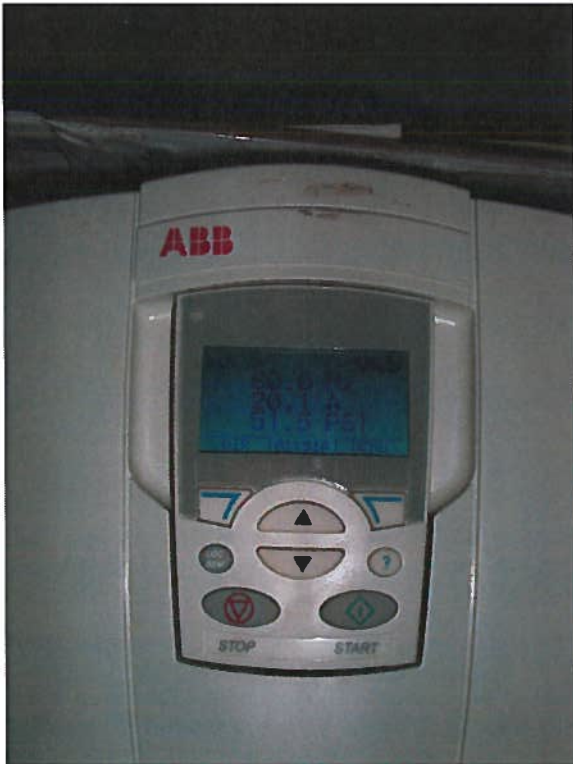


Well with house & front lawn. Fertilizer tank next to well. Tank hooks into sprinkler system at box next to well.

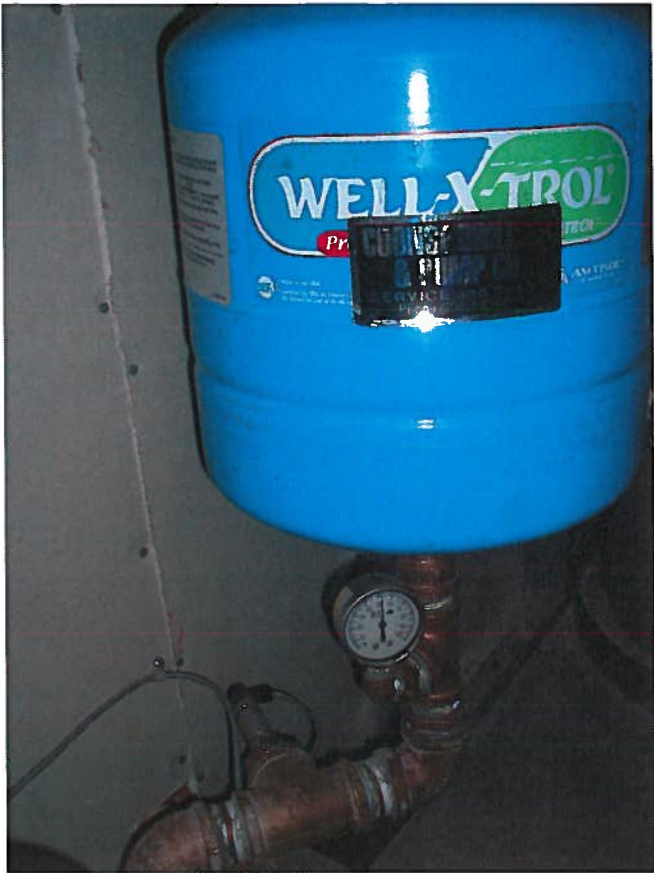
Field Exam 63-12530
August 10, 2011
Exam by Kay Walker
Photos by Angie Grimm



Well pump control box. Motor info sticker on wall inside house basement.



Close up of pump control box info panel. Displaying operating pressure 51.5 psi (sprinklers in front yard on)



Field Exam 63-12530
August 10, 2011
Exam by Kay Walker
Photos by Angie Grimm

Small pressure tank & pipe with pressure gage with reading approx. 52 psi (same as pump control box panel)



Small pond/water feature in back yard filled with water from well.

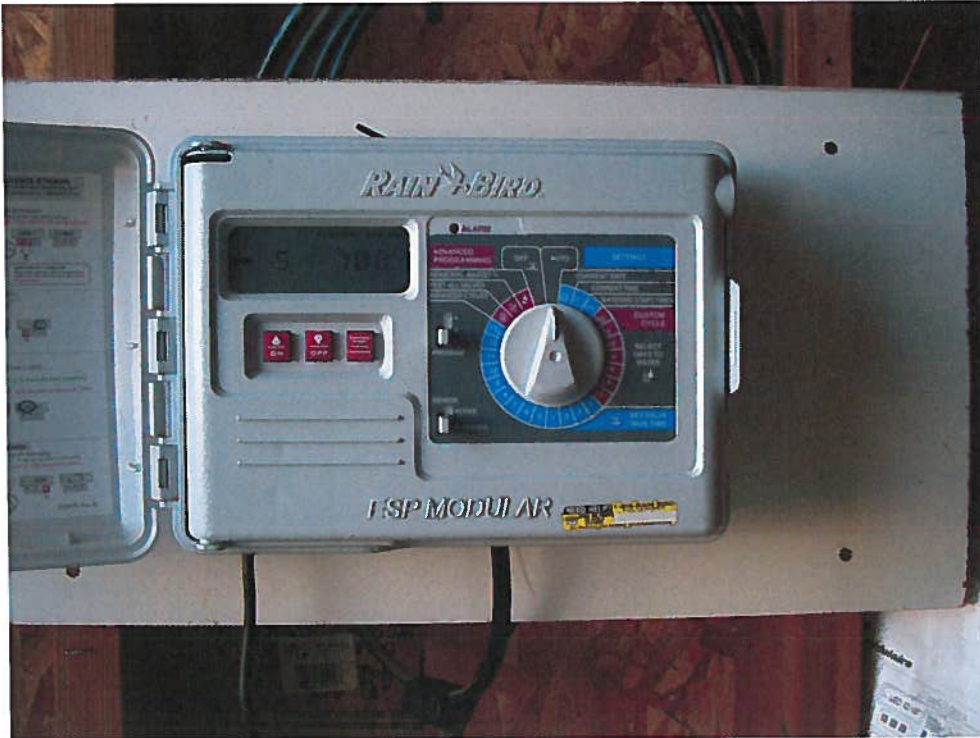


Field Exam 63-12530
August 10, 2011
Exam by Kay Walker
Photos by Angie Grimm

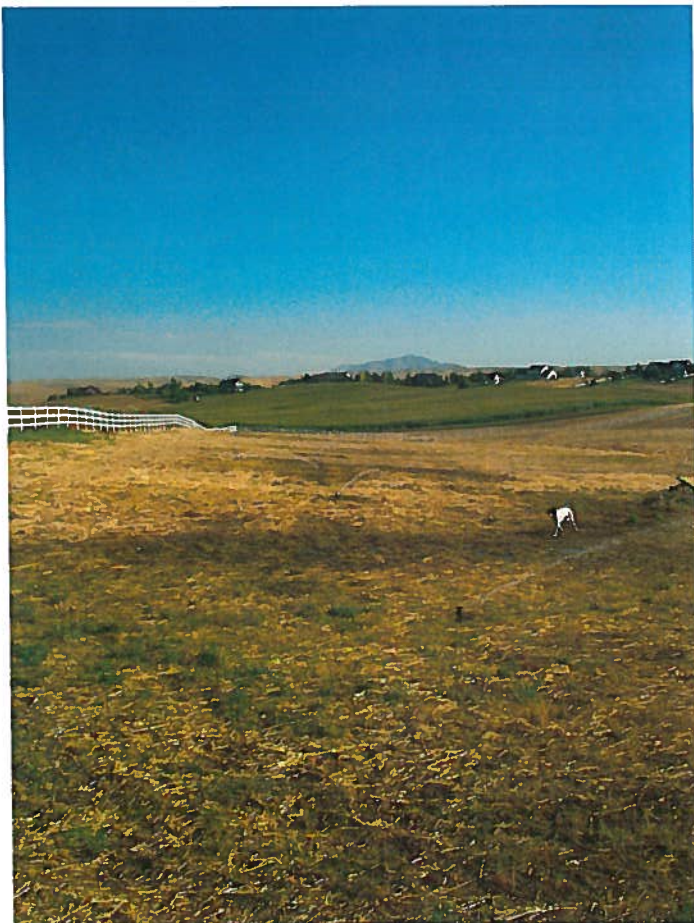


Panorama of property from pond and all of pasture & yard in back of house.

Field Exam 63-12530
August 10, 2011
Exam by Kay Walker
Photos by Angie Grimm



Control box for pasture sprinkler system.





Field Exam 63-12530
August 10, 2011
Exam by Kay Walker
Photos by Angie Grimm

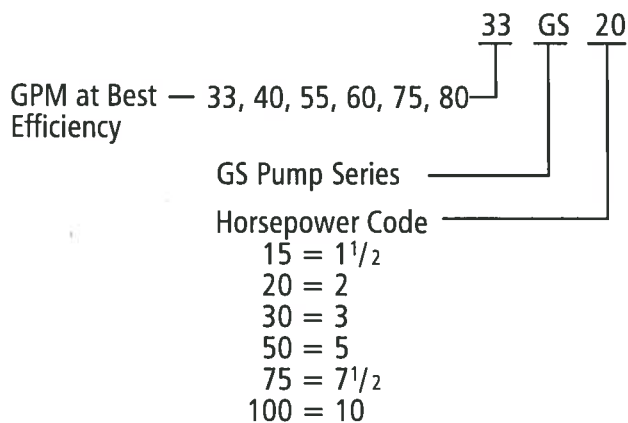
Photos showing sprinklers in use on pasture.



WATER END DATA

Series	Model	Required H.P.	Stages	Water End	
				Length (in)	Wt (lbs)
33GS	33GS10	1	6	14.2	8
	33GS15	1.5	8	16.6	9
	33GS20	2	10	19.1	10
	33GS30	3	14	24	13
	33GS50	5	22	35.2	19
	33GS75	7.5	34	50.6	27
	33GS100	10	44	62.8	33
40GS	40GS15	1.5	5	12.9	8
	40GS20	2	6	14.2	8
	40GS30	3	8	16.6	9
	40GS50	5	14	24.0	13
	40GS75	7.5	21	34.0	18
55GS	55GS15	1.5	5	17.1	10
	55GS20	2	7	21.2	12
	55GS30	3	9	25.3	15
	55GS50	5	15	39.1	22
	55GS75	7.5	22	54.1	32
	55GS100	10	29	98.4	39
60GS	60GS15	1.5	4	15.0	8
	60GS20	2	5	17.1	9
	60GS30	3	7	21.2	10
	60GS50	5	11	30.9	14
	60GS75	7.5	17	43.2	19
75GS	75GS30	3	7	24.1	14
	75GS50	5	11	34.8	19
	75GS75	7.5	16	48.2	27
	75GS100	10	21	63.8	35
80GS	80GS30	3	5	21.4	10
	80GS50	5	9	29.4	13
	80GS75	7.5	14	42.8	24

NOMENCLATURE – SOLD AS WATER ENDS ONLY



SPECIFICATIONS

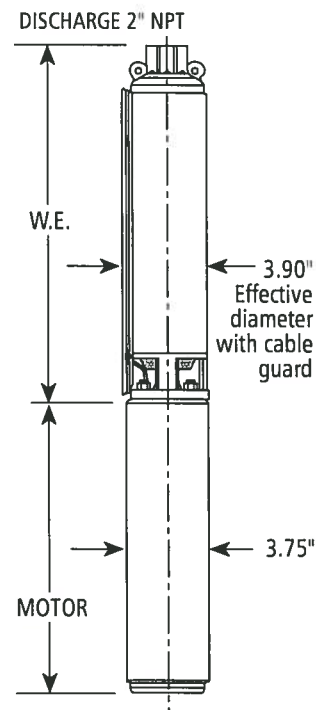
Model	Flow Range GPM	Horsepower Range	Best Efficiency GPM	Discharge Connection	Minimum Well Size	Rotation ^①
33GS	10 – 50	1 – 10	33	2"	4"	CCW
40GS	20 – 65	1½ – 7½	40	2"	4"	CCW
55GS	20 – 80	1½ – 10	55	2"	4"	CCW
60GS	40 – 80	1½ – 7½	60	2"	4"	CCW
75GS	40 – 100	3 – 10	75	2"	4"	CCW
80GS	50 – 120	3 – 7½	80	2"	4"	CCW

① Rotation is counterclockwise when observed from pump discharge end.

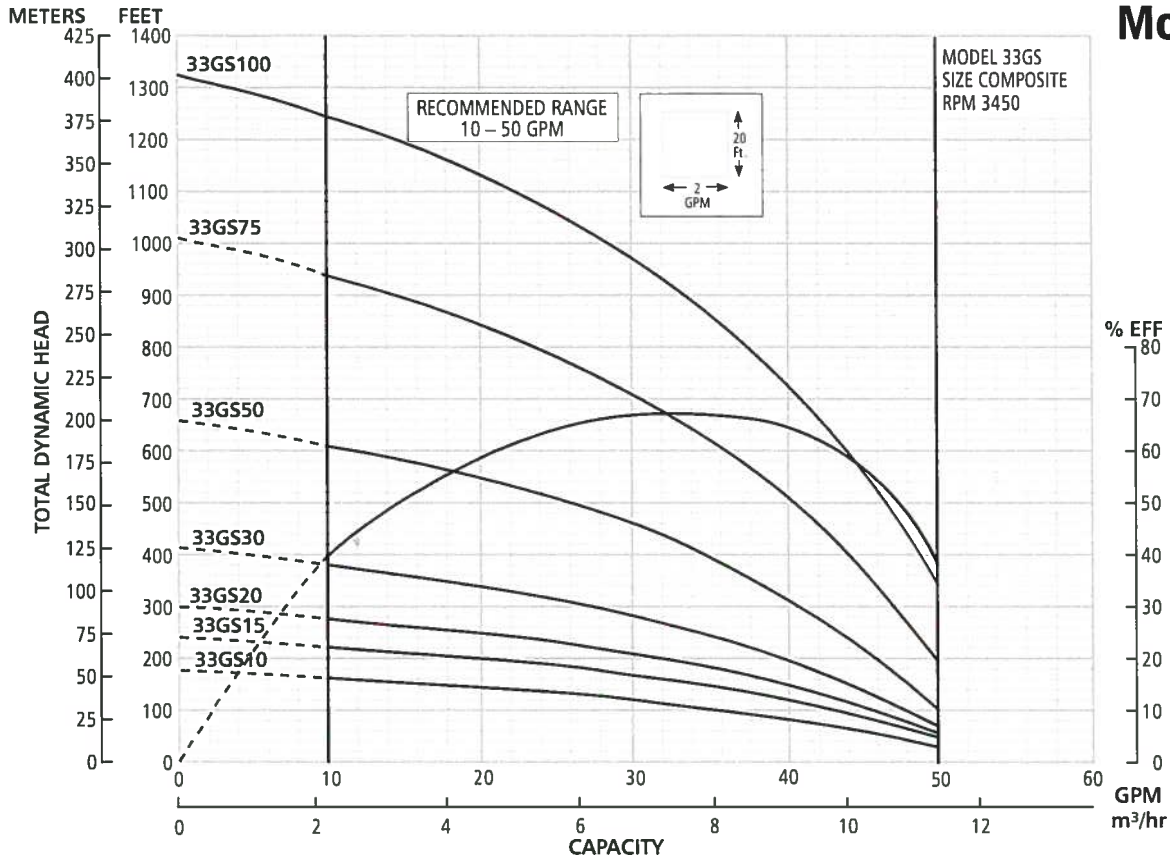
"GS" SERIES MATERIALS OF CONSTRUCTION

Part Name	Material
Discharge Head	AISI 303 SS
Check Valve Poppet	AISI 304 SS
Check Valve Seal	BUNA, FDA compliant
Check Valve Seat	AISI 304 SS
Check Valve Retaining Ring	AISI 302 SS
Bearing Spider – Upper	Glass Filled Engineered Composite
Bearing	Proprietary Engineered Polymer
Klipring	AISI 301 SS
Diffuser	Lexan®
Impeller	Noryl®
Bowl	AISI 304 SS
Intermediate Sleeve*	AISI 304 SS, Powder Metal
Intermediate Shaft Coupling*	AISI 304 SS, Powder Metal
Intermediate Bearing Spider*	Glass Filled Engineered Composite
Intermediate Bearing Spider*	AISI 303 SS
Shim	AISI 304 SS
Screws – Cable Guard	AISI 304 SS
Motor Adapter	AISI 303 SS
Casing	AISI 304 SS
Shaft	AISI 304 SS, 1-3 HP; 17/4 PH, 5-10 HP
Coupling	AISI 304 SS, Powder Metal
Cable Guard	AISI 304 SS
Suction Screen	AISI 304 SS

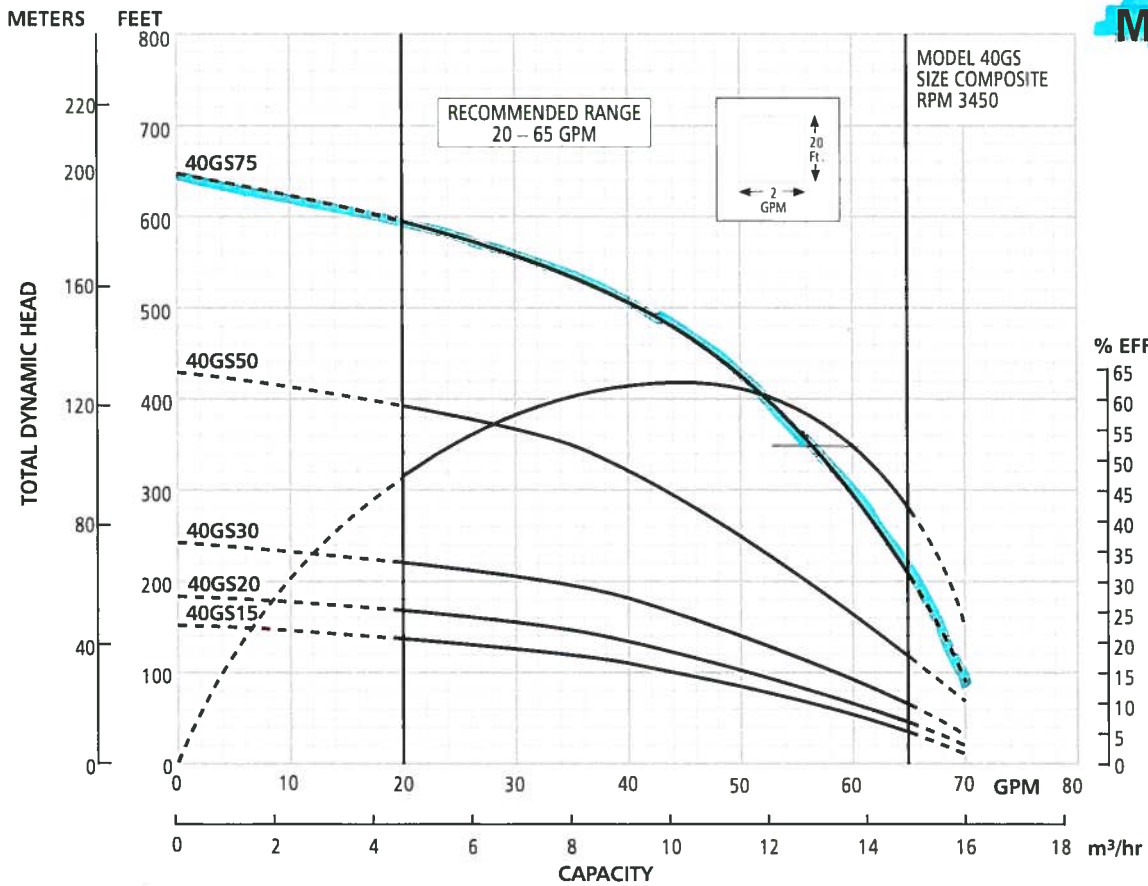
*See repair parts for where used.



Model 33GS



Model 40GS



Model 40GS

SELECTION CHART

Horsepower Range 1½ – 7½, Recommended Range 20 – 65 GPM, 60 Hz, 3450 RPM

Pump Model	HP	PSI	Depth to Water in Feet/Ratings in GPM (Gallons per Minute)																											
			20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400	440	480	520	560	600	640		
40GS15	1½	0		65	59	53	46	35																						
		20	58	51	43	31																								
		30	50	41	28																									
		40	40	25																										
		50	22																											
		60																												
Shut-off PSI			57	49	40	31	23	14																						
40GS20	2	0			63	58	53	47	38	25																				
		20	61	57	51	44	35																							
		30	56	50	43	33																								
		40	49	42	31																									
		50	40	29																										
		60	26																											
Shut-off PSI			71	62	53	45	36	27	19	10																				
40GS30	3	0				63	59	56	51	47	41	33	20																	
		20	65	62	58	54	50	45	38	32	30																			
		30	61	58	54	49	44	37	28																					
		40	57	53	48	43	36	26																						
		50	52	48	42	35	24																							
		60	47	41	33	21																								
Shut-off PSI			97	88	80	71	62	54	45	36	28	19	10																	
40GS50	5	0					65	64	62	60	58	56	53	51	48	45	42	38	33	26										
		20				65	63	61	59	57	55	52	50	47	44	41	36	31	23											
		30			64	63	61	59	57	54	52	50	47	44	40	36	30	21												
		40		64	62	60	58	56	54	52	49	46	43	39	35	29	20													
		50	64	62	60	58	56	54	51	49	46	43	39	34	28															
		60	62	60	58	56	53	51	48	45	42	38	33	26																
Shut-off PSI			178	169	161	152	143	135	126	117	109	100	91	83	74	65	57	48	39	31	22									
40GS75	7½	0									65	64	63	62	61	60	59	57	56	54	53	49	44	38	30					
		20									65	64	63	62	61	59	58	57	55	54	52	50	48	43	37	28				
		30									65	64	63	62	61	59	58	57	55	53	52	50	48	45	40	32	22			
		40						65	64	63	62	60	59	58	56	55	53	51	49	47	45	42	36	27						
		50					65	64	62	61	60	59	58	56	55	53	51	50	47	44	41	38	35	25						
		60			65	64	63	62	61	60	59	57	56	54	53	51	49	47	44	41	38	35	25							
Shut-off PSI			271	263	254	245	237	228	219	211	202	194	185	176	168	159	150	142	133	124	116	107	90	72	55	38				

per well log -

pumping level 340' - 33gpm
320' - 20gpm