

FIELD EXAMINATION OF CSRBA WATER RIGHT CLAIM

Claim Identification Number: 95-18251, 95-9746

Date of Examination: May 28, 2024

Approximate Time of Examination: On site approximately 1:30 PM PST

IDWR Field Staff: Michael Thompson, Greg Cooksey

Point of Contact: Jeremy Doty (son of Mary Louise Marshall)

Examination Location: 53N 02W Section 32

Purpose of Visit: Examine claimed point of diversion, place of use, and existing irrigation system(s).

Report Prepared By: Michael Thompson, Water Resource Agent, IDWR Northern

Field Examination Notes:

On May 28, 2024, we were met by Jeremy Doty, son of Mary Louise Marshall, trustee for the Mary Marshall Anderson Ranch Trust At 13000 E Nunn Road, Athol, ID 83801. Mr. Doty was accompanied by his son, Travis. Mr. Doty showed us around the property identifying the irrigation equipment currently in use, places of use, point of diversion, as well as some older irrigation equipment no longer in use.

The irrigation equipment currently in use consists of a KIFCO Nelson SR150 sprinkler (Image 1) attached to a KIFCO ST5 water reel that houses 1200 feet of flexible pipe (Image 2) fed by a 56 HP diesel-powered pump (Image 3) at the Green Creek point of diversion. The sprinkler was in the NW part of the place of use but can be easily moved to any other part of the POU using a vehicle to tow the unit. The water reel and diesel-powered pump can also be towed; the entire system is portable.

After examining the sprinkler, Mr. Doty led a walking tour of the property to examine the water reel (located centrally in POU), indicated the extent of the currently irrigated area in detail (Image 4, map produced by Greg Cooksey based on information from Mr. Doty) and took us to the Green Creek point of diversion to examine the diesel-powered pump.

During the field exam Mr. Doty provided specifications for the ST5 water reel indicating potential flow based on PSI (Image 5). On May 29, 2024, Mr. Doty provided specifications of the diesel-powered pump and indicated his 56 HP pump produces approximately 125 PSI. Using the Nelson SR150 chart (Image 6) Mr. Doty indicated his sprinkler output is approximately 200 GPM in its current configuration.

Image 1: KIFCO Nelson SR150 sprinkler:



Image 2: KIFCO ST5 water reel:



Image 3: 56 HP diesel-powered pump:



Image 4: 95-18251 Current Usage map:

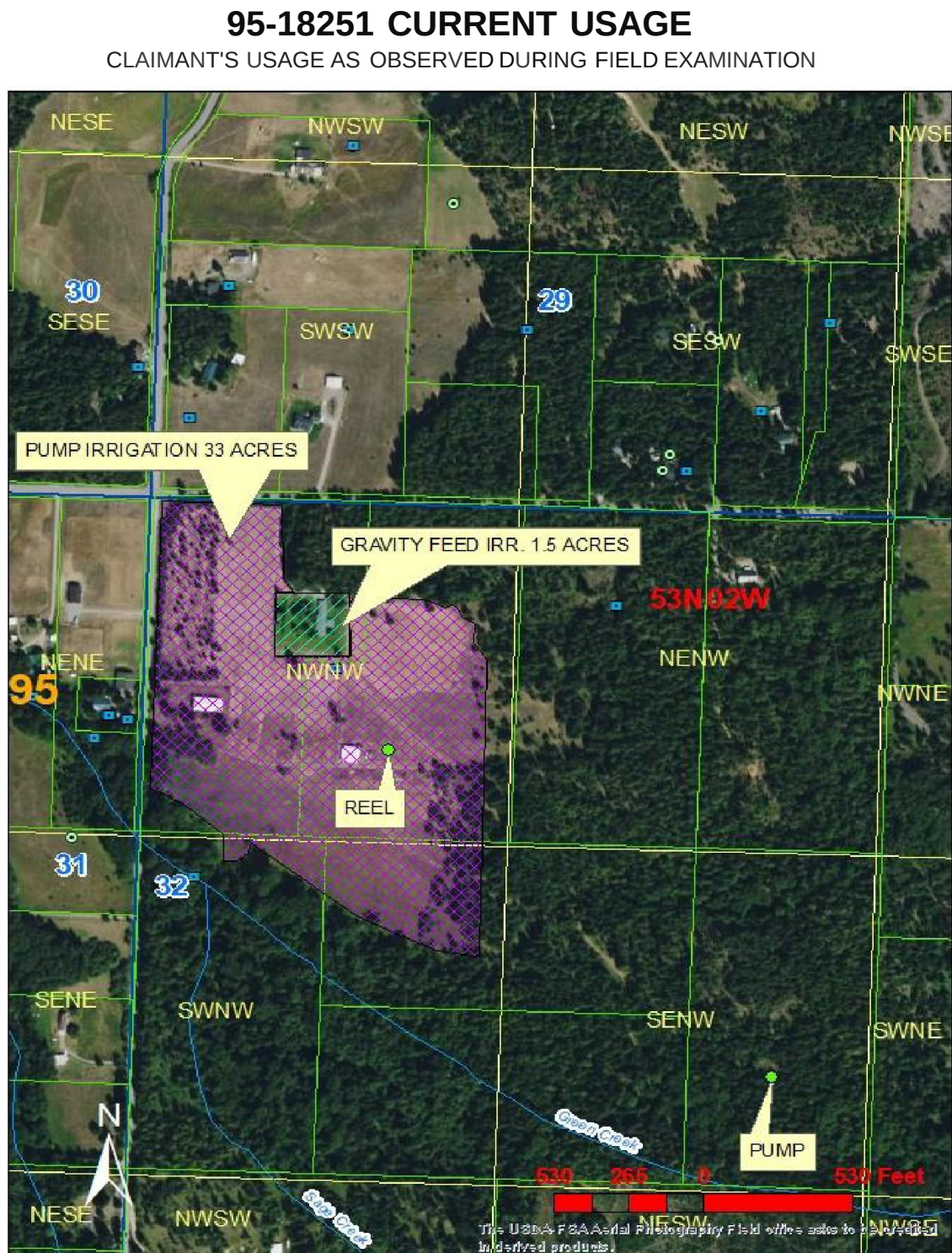


Image 5: KIFCO ST5 water reel specification sheet:

Technical Specifications

Tube Inner Diameter/Length	3.0" x 1200'
Irrigated Width	186' - 232'
Irrigated Length	1,293' - 1,316'
Retraction Speed	30 - 300 ft. per hr.
Irrigated Area Per Run (Acres)	5.5 - 7.0
Drive System	Turbine
GPM Range	125 - 240
Inlet PSI Range	81 - 150
Hours Per Full Run	4.0 - 40
Dry Weight (lbs)	5,500
Weight w/ Water (lbs)	9,170
Chassis Size	ST5

Options

Primary Pumps	KF2X3K, KB2ERK, KB2.5JD
Booster Pump	KFACGFH-G21, KFNG2.5B-G23
Hydraulic Jack	Eliminates the need to manually raise or lower the tongue of the machine
Hydraulic Stabilizer Legs & Guncart Lift	Hydraulically drives the stabilizer legs into the ground & lifts the sprinkler cart without the need of a winch
High Pressure Shutdown	Automatically shuts off water flow at the end of each run
Rain Sentry Irrigation Computer	Generates a digital read out and controls retraction speed, application rate, shut off and start up
Guncart Riser Extensions	12" or 24" guncart riser extensions (High-Cart)
PTO Shaft	Ability to rewind your machine with your tractor without irrigating
Sprinklers	Nelson SR150 and Komet 140

T30x1200 Dimensions

Sprinkler Model	Nozzle Dia.	Inlet PSI	(Q) GPM	Width (ft.) (70%)	Length (ft.) (70%)	Wetted Dia. (ft.)	Application Rate (in.)
Nelson SR150	0.97"	83	130	186	1293	265	.05 - 1.5
	0.97"	97	143	196	1298	280	.05 - 1.5
	0.97"	111	155	203	1302	290	.05 - 1.5
	0.97"	125	165	210	1305	300	.05 - 1.5
	1.08"	95	165	200	1300	285	.05 - 1.5
	1.08"	112	182	210	1305	300	.05 - 1.5
	1.08"	129	197	217	1309	310	.05 - 1.5
	1.08"	145	210	224	1312	320	.05 - 1.5
	1.18"	112	205	210	1305	300	.05 - 1.5
	1.18"	132	225	221	1310	315	.05 - 1.5
	1.18"	150	240	231	1316	330	.05 - 1.5

ST5 Chassis

Rotate Turntable 180° and Irrigate in Opposite Direction

Sprinkler Model	Nozzle Dia.	Inlet PSI	(Q) GPM	Width (ft.) (70%)	Length (ft.) (70%)	Wetted Dia. (ft.)	Application Rate (in.)
Komet 140	.79"	81	125	187	1293	267	0.5 - 1.5
	.79"	95	138	197	1299	282	0.5 - 1.5
	.79"	109	149	208	1304	297	0.5 - 1.5
	.79"	123	159	218	1309	312	0.5 - 1.5
	.87"	90	152	198	1299	283	0.5 - 1.5
	.87"	106	167	209	1304	298	0.5 - 1.5
	.87"	121	180	220	1310	314	0.5 - 1.5
	.87"	136	192	230	1315	329	0.5 - 1.5
	.94"	102	181	210	1305	300	0.5 - 1.5
	.94"	119	198	221	1310	315	0.5 - 1.5
	.94"	137	214	226	1313	323	0.5 - 1.5
	1.02"	116	212	221	1311	316	0.5 - 1.5
	1.02"	137	233	232	1316	331	0.5 - 1.5

10 PSI turbine pressure loss is assumed in all data. Area covered may vary depending on wind conditions and use of different sprinklers. Specifications are subject to change without notice. Technical specifications contained herein are based upon sprinkler manufacturer's recommended pressure and flow. Actual specifications may vary.

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Image 6: 56 HP diesel-powered pump specification sheet:



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Primary Pumps (25HP and 56HP)

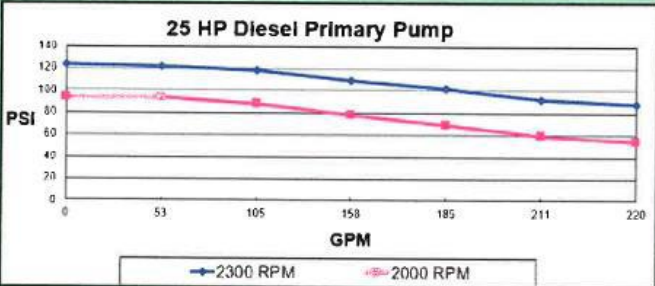


25HP Primary Pump Pictured

- Rovatti Pumps close coupled to Kohler diesel engines
- Control panel featuring Low oil, low water pressure and high water temperature safety shutdown; Control panel readings are in metric; imperial conversions are included
- Both models are standard on a small trailer kit and are equipped with hand primer and mechanical seal

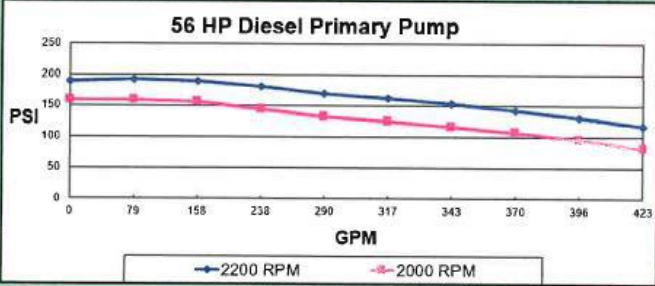
Pump Model	Compatible Water-Reel Model
25HP Primary Pump	T/E180, T/E200S, T/E200L, T/E210, T/E25x750, T/E27x980
56HP Primary Pump	T/E27x980, T/E30x660, T/E30x980, T/E30x1200, T/E33x1120, T/E33x1050, T/E37x1080, T/E37x1220, T/E40x1250, T/E40x1320, T/E45x1150

25 HP Diesel Primary Pump



GPM	2300 RPM (PSI)	2000 RPM (PSI)
0	120	100
53	118	95
105	115	90
158	110	85
185	105	80
211	100	75
220	95	70

56 HP Diesel Primary Pump



GPM	2200 RPM (PSI)	2000 RPM (PSI)
0	190	160
79	188	158
158	185	155
238	180	150
290	175	145
317	170	140
343	165	135
370	160	130
396	155	125
423	150	120

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