

FREY PIVOT SERVICE

SEPTEMBER 30, 2025

WISH-119639

CUSTOMER : KEVIN MULVEY

2002 LINDSAY GEN II - 30
7 TOWER - 1300.47 FT
SYSTEM 900 GPM @ 32 PSI

LEGAL : NW 1/4 10-16-28

SENNINGER UP3 XCEL TOP
SENNINGER 10 PSI REGULATORS
NELSON SR-100 .80 TB
ELEVATION 5 FT UP, 5 FT DOWN

77 COUNTY ROAD 40
STAPLETON, NEBRASKA 69163
(308)636-2327

WARRANTY

WATER APPLICATION UNIFORMITY OBTAINED WITH THIS SYSTEM CAN BE ADVERSELY AFFECTED BY MANY VARIABLES INCLUDING THE IMPROPER MAKEUP OR INSTALLATION OF THE SPRINKLER OR SPRAY NOZZLE PACKAGE, OBSTRUCTED NOZZLES, MAINTAINING INCORRECT PIVOT PRESSURE, UNFAVORABLE CLIMATIC CONDITIONS, TIGHT AND/OR SLOPING SOILS, IMPROPER END GUN ARC SETTINGS, ERRATIC AND IMPROPER OPERATING SPEED OF THE SYSTEM, POOR QUALITY OF WATER WITH ABRASIVES, CORROSIVES, AND/OR SOLIDS WHICH CAN CAUSE PLUGGING AND JAMMING, AS WELL AS INHERENT VARIABLES IN THE MANY COMPONENTS COMPRISING THE SYSTEM. THEREFORE WESTERN IRRIGATION SUPPLY HOUSE, INC., MAKES NO WARRANTY AS TO THE UNIFORMITY OF COVERAGE OBTAINED FROM THIS WATER APPLICATION PRINTOUT OTHER THAN ITS MATHEMATICAL ACCURACY.

IT IS THE RESPONSIBILITY OF THE END USER TO DETERMINE IF ANY INCOMPATIBILITY EXISTS BETWEEN THE WATER DISTRIBUTION DEVICES AND THE CROP, THE SOIL, AND THE PHYSICAL STRUCTURE OF THE MECHANICAL MOVE SYSTEM. WESTERN IRRIGATION SUPPLY HOUSE, INC., THEREFORE, DISCLAIMS ANY LIABILITY FOR DAMAGES DUE TO FAILURE OF THE SYSTEM TO PERFORM AS CONTEMPLATED.

FIGURES PRESENTED ON THIS COMPUTER PRINTOUT ARE BASED ON THE FOLLOWING:

1. DATA FURNISHED TO WESTERN IRRIGATION SUPPLY HOUSE, INC., ON PIPE LENGTH, DIAMETER, SURFACE FINISH, OUTLET SPACINGS, WATER FLOW, PIVOT PRESSURE AND ALL OTHER APPLICABLE INFORMATION.
2. THERE IS 100% WATER APPLICATION EFFICIENCY (ZERO WIND VELOCITY AND NO EVAPORATION).
3. PIVOT PRESSURE IS MEASURED ON THE MAIN HORIZONTAL DISTRIBUTION PIPE JUST AFTER THE LAST ELBOW.
4. MAIN PIPE PRESSURE IS CALCULATED AS IF THE PIVOT IS ALWAYS ON LEVEL GROUND.
5. SPRINKLER OR SPRAY NOZZLE BASE PRESSURE MAY BE LESS THAN MAIN LINE PIPE PRESSURE DUE TO THE USE OF PRESSURE REGULATORS. WHERE DROP PIPES ARE USED THE STATIC HEAD IS ADDED TO AND FRICTION LOSS IS SUBTRACTED FROM THE MAIN LINE PIPE PRESSURE TO DETERMINE INLET PSI. REGULATORS ARE CONSIDERED MOUNTED AT THE SAME HEIGHT AS THE SPRINKLING DEVICE UNLESS NOTED.

<u>DEALER</u> FREY PIVOT SERVICE 77 COUNTY ROAD 40 STAPLETON, NEBRASKA 69163			<u>IRRIGATOR</u> KEVIN MULVEY NW 1/4 10-16-28			
TOTAL TARGET GPM	900.00	FRICTION FACTOR USED	138	SPANS	LENGTH	PIPE I.D.
TOP OF PIVOT PRESSURE	32.00	TOTAL LENGTH	1300.47	1	181.60	6.395
ENDGUN TARGET GPM	125.73	NUMBER OF TOWERS	7	6	179.00	6.395
NUMBER OF OUTLETS	529	NUMBER OF SPRINKLERS	124	OH	44.87	5.369

SENNINGER UP3 XCEL TOP
SENNINGER PSR-2 10 PSI SERIES REGULATORS

ELEVATION IS 5 FT UP AND 5 FT DOWN

CAUTIONS AND WARNINGS

1. Over watering at beginning of system due to practical limitations on smallest nozzle sizes available and/or allowable for proper operation.

2. This system designed for minimum pressure. Failure to deliver indicated pressure at the top of pivot point will adversely affect regulator and/or sprinkler/spray performance. Elevations, pipe sizes and type of drop pipe must be as shown.

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE						SPRK NO.	REG SIZE	PLUG NO.
49	12.26	120.35	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	41
50		122.85	1.37	1.35	29.05	11.40	XCEL	TOP	UP3	7.5	LIME		9	SPSR2-10	
51		125.27	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	42
52		127.69	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	43
53		130.19	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	44
54	12.17	132.69	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	45
55		135.02	1.51	1.53	28.98	11.40	XCEL	TOP	UP3	8	LAVENDER		10	SPSR2-10	
56		137.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	46
57		139.83	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	47
58		142.33	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	48
59	12.23	144.83	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	49
60		147.25	1.65	1.73	28.96	11.40	XCEL	TOP	UP3	8.5	LAVENDER		11	SPSR2-10	
61		149.67	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	50
62		152.17	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	51
63		154.59	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	52
64	12.26	157.01	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	53
65		159.51	1.78	1.73	28.98	11.40	XCEL	TOP	UP3	8.5	LAVENDER		12	SPSR2-10	
66		161.93	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	54
67		164.35	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	55
68		166.85	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	56
69	12.18	169.27	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	57
70		171.69	1.96	1.93	29.04	11.40	XCEL	TOP	UP3	9	GREY		13	SPSR2-10	
71		174.19	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	58
72		176.69	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	59
73		179.02	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	60
TOWER 1	181.60	181.60													
74	12.81	181.92	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	61
75		184.50	2.10	2.16	28.83	11.38	XCEL	TOP	UP3	9.5	GREY		14	SPSR2-10	
76		186.83	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	62
77		189.33	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	63
78		191.83	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	64
79	12.17	194.25	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	65
80		196.67	2.20	2.16	28.46	11.38	XCEL	TOP	UP3	9.5	GREY		15	SPSR2-10	
81		199.17	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	66
82		201.59	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	67
83		204.01	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	68
84	12.26	206.51	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	69
85		208.93	2.34	2.39	28.01	11.36	XCEL	TOP	UP3	10	TURQUOISE		16	SPSR2-10	
86		211.35	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	70
87		213.85	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	71
88		216.27	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	72
89	12.26	218.69	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	73
90		221.19	2.47	2.39	27.60	11.36	XCEL	TOP	UP3	10	TURQUOISE		17	SPSR2-10	
91		223.69	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	74
92		226.02	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	75
93		228.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	76
94	12.14	230.83	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	77
95		233.33	2.60	2.63	27.25	11.34	XCEL	TOP	UP3	10.5	TURQ		18	SPSR2-10	

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE							SPRK NO.	REG SIZE	PLUG NO.
144	12.34	353.19	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	117
145		355.69	4.06	4.03	26.06	11.20	XCEL	TOP	UP3	13	WHITE		28	SPSR2-10		
146		358.02	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	118
TOWER 2	179.00	360.60														
147	12.64	360.92	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	119
148		363.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	120
149		365.83	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	121
150	9.84	368.33	3.78	3.73	25.87	11.23	XCEL	TOP	UP3	12.5	RED		29	SPSR2-10		
151		370.83	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	122
152		373.25	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	123
153	9.76	375.67	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	124
154		378.17	3.39	3.44	25.50	11.26	XCEL	TOP	UP3	12	RED		30	SPSR2-10		
155		380.59	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	125
156	9.76	383.01	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	126
157		385.51	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	127
158		387.93	3.46	3.44	25.16	11.26	XCEL	TOP	UP3	12	RED		31	SPSR2-10		
159	9.76	390.35	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	128
160		392.85	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	129
161		395.27	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	130
162	9.81	397.69	3.56	3.44	24.85	11.26	XCEL	TOP	UP3	12	RED		32	SPSR2-10		
163		400.19	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	131
164		402.69	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	132
165	9.75	405.02	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	133
166		407.50	3.65	3.73	24.57	11.23	XCEL	TOP	UP3	12.5	RED		33	SPSR2-10		
167		409.83	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	134
168	9.76	412.33	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	135
169		414.83	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	136
170		417.25	3.72	3.73	24.32	11.23	XCEL	TOP	UP3	12.5	RED		34	SPSR2-10		
171	9.84	419.67	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	137
172		422.17	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	138
173		424.59	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	139
174	9.84	427.01	3.83	3.73	24.10	11.23	XCEL	TOP	UP3	12.5	RED		35	SPSR2-10		
175		429.51	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	140
176		431.93	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	141
177	9.64	434.35	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	142
178		436.85	3.93	4.03	23.90	11.20	XCEL	TOP	UP3	13	WHITE		36	SPSR2-10		
179		439.27	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	143
180	9.84	441.69	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	144
181		444.19	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	145
182		446.69	3.98	4.03	23.74	11.20	XCEL	TOP	UP3	13	WHITE		37	SPSR2-10		
183	9.84	449.02	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	146
184		451.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	147
185		453.83	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	148
186	9.84	456.33	4.07	4.03	23.61	11.20	XCEL	TOP	UP3	13	WHITE		38	SPSR2-10		
187		458.83	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	149
188		461.25	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	150
189	9.84	463.67	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	151
190		466.17	4.18	4.03	23.51	11.20	XCEL	TOP	UP3	13	WHITE		39	SPSR2-10		

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE										SPRK NO.	REG SIZE	PLUG NO.
333	9.75	816.83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	259		
334		819.25	7.31	7.16	19.54	10.71	XCEL	TOP	UP3	17.5	DK	GREEN	75	SPSR2-10	260				
335		821.67	-	-	-	-	-	-	-	-	-	-	-	-	-	261			
336		824.17	-	-	-	-	-	-	-	-	-	-	-	-	-	262			
337		826.59	-	-	-	-	-	-	-	-	-	-	-	-	-	263			
338	9.76	829.01	7.44	7.55	19.51	10.64	XCEL	TOP	UP3	18	PURPLE	76	SPSR2-10	264					
339		831.51	-	-	-	-	-	-	-	-	-	-	-	-	265				
340		833.93	-	-	-	-	-	-	-	-	-	-	-	-	266				
341		836.35	-	-	-	-	-	-	-	-	-	-	-	-	267				
342		838.85	7.55	7.55	19.52	10.64	XCEL	TOP	UP3	18	PURPLE	77	SPSR2-10	268					
343	9.84	841.27	-	-	-	-	-	-	-	-	-	-	-	-	269				
344		843.69	-	-	-	-	-	-	-	-	-	-	-	-	270				
345		846.19	-	-	-	-	-	-	-	-	-	-	-	-	271				
346		848.69	7.56	7.55	19.55	10.64	XCEL	TOP	UP3	18	PURPLE	78	SPSR2-10	272					
347		851.02	-	-	-	-	-	-	-	-	-	-	-	-	273				
348	9.64	853.50	-	-	-	-	-	-	-	-	-	-	-	-	274				
349		855.83	-	-	-	-	-	-	-	-	-	-	-	-	275				
350		858.33	7.65	7.55	19.61	10.64	XCEL	TOP	UP3	18	PURPLE	79	SPSR2-10	276					
351		860.83	-	-	-	-	-	-	-	-	-	-	-	-	277				
352		863.25	-	-	-	-	-	-	-	-	-	-	-	-	278				
353	9.84	865.67	-	-	-	-	-	-	-	-	-	-	-	-	279				
354		868.17	7.79	7.95	19.71	10.57	XCEL	TOP	UP3	18.5	PURPLE	80	SPSR2-10	280					
355		870.59	-	-	-	-	-	-	-	-	-	-	-	-	281				
356		873.01	-	-	-	-	-	-	-	-	-	-	-	-	282				
357		875.51	-	-	-	-	-	-	-	-	-	-	-	-	283				
358	9.76	877.93	7.84	7.95	19.83	10.57	XCEL	TOP	UP3	18.5	PURPLE	81	SPSR2-10	284					
359		880.35	-	-	-	-	-	-	-	-	-	-	-	-	285				
360		882.85	-	-	-	-	-	-	-	-	-	-	-	-	286				
361		885.27	-	-	-	-	-	-	-	-	-	-	-	-	287				
362		887.69	8.12	7.95	19.99	10.57	XCEL	TOP	UP3	18.5	PURPLE	82	SPSR2-10	288					
363	9.76	890.19	-	-	-	-	-	-	-	-	-	-	-	-	289				
364		892.69	-	-	-	-	-	-	-	-	-	-	-	-	290				
365		895.02	-	-	-	-	-	-	-	-	-	-	-	-	291				
TOWER 5		179.00	897.60	-	-	-	-	-	-	-	-	-	-	-	-	292			
366		10.23	897.92	8.27	8.35	19.92	10.50	XCEL	TOP	UP3	19	BLACK	83	SPSR2-10	293				
367	9.91	900.50	-	-	-	-	-	-	-	-	-	-	-	-	294				
368		902.83	-	-	-	-	-	-	-	-	-	-	-	-	295				
369		905.33	-	-	-	-	-	-	-	-	-	-	-	-	296				
370		907.83	8.17	8.35	19.80	10.49	XCEL	TOP	UP3	19	BLACK	84	SPSR2-10	297					
371		910.25	-	-	-	-	-	-	-	-	-	-	-	-	298				
372	9.76	912.67	-	-	-	-	-	-	-	-	-	-	-	-	299				
373		915.17	-	-	-	-	-	-	-	-	-	-	-	-	300				
374		917.59	8.19	8.35	19.53	10.49	XCEL	TOP	UP3	19	BLACK	85	SPSR2-10	301					
375		920.01	-	-	-	-	-	-	-	-	-	-	-	-	302				
376		922.51	-	-	-	-	-	-	-	-	-	-	-	-	303				
377	9.76	924.93	-	-	-	-	-	-	-	-	-	-	-	-	304				
378		927.35	8.31	8.35	19.28	10.50	XCEL	TOP	UP3	19	BLACK	86	SPSR2-10	305					
379		929.85	-	-	-	-	-	-	-	-	-	-	-	-	306				

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE							SPRK NO.	REG SIZE	PLUG NO.
428		1049.59	-	-	-	-	-	-	-	-	-	-	-	-	-	330
429		1052.01	-	-	-	-	-	-	-	-	-	-	-	-	-	331
430	9.84	1054.51	9.44	9.60	18.85	10.27	XCEL	TOP	UP3	20.5	DK	TURQ		99	SPSR2-10	
431		1056.93	-	-	-	-	-	-	-	-	-	-	-	-	-	332
432		1059.35	-	-	-	-	-	-	-	-	-	-	-	-	-	333
433		1061.85	-	-	-	-	-	-	-	-	-	-	-	-	-	334
434	9.76	1064.27	9.48	9.60	19.03	10.27	XCEL	TOP	UP3	20.5	DK	TURQ		100	SPSR2-10	
435		1066.69	-	-	-	-	-	-	-	-	-	-	-	-	-	335
436		1069.19	-	-	-	-	-	-	-	-	-	-	-	-	-	336
437		1071.69	-	-	-	-	-	-	-	-	-	-	-	-	-	337
438	9.75	1074.02	9.83	10.02	19.05	10.19	XCEL	TOP	UP3	21	MUSTARD			101	SPSR2-10	
TOWER 6	179.00	1076.60														
439		1076.92	-	-	-	-	-	-	-	-	-	-	-	-	-	338
440		1079.50	-	-	-	-	-	-	-	-	-	-	-	-	-	339
441		1081.83	-	-	-	-	-	-	-	-	-	-	-	-	-	340
442	10.31	1084.33	9.96	10.02	19.02	10.19	XCEL	TOP	UP3	21	MUSTARD			102	SPSR2-10	
443		1086.83	-	-	-	-	-	-	-	-	-	-	-	-	-	341
444		1089.25	-	-	-	-	-	-	-	-	-	-	-	-	-	342
445		1091.67	-	-	-	-	-	-	-	-	-	-	-	-	-	343
446	9.84	1094.17	9.77	9.60	18.77	10.28	XCEL	TOP	UP3	20.5	DK	TURQ		103	SPSR2-10	
447		1096.59	-	-	-	-	-	-	-	-	-	-	-	-	-	344
448		1099.01	-	-	-	-	-	-	-	-	-	-	-	-	-	345
449		1101.51	-	-	-	-	-	-	-	-	-	-	-	-	-	346
450	9.76	1103.93	9.83	10.02	18.55	10.19	XCEL	TOP	UP3	21	MUSTARD			104	SPSR2-10	
451		1106.35	-	-	-	-	-	-	-	-	-	-	-	-	-	347
452		1108.85	-	-	-	-	-	-	-	-	-	-	-	-	-	348
453		1111.27	-	-	-	-	-	-	-	-	-	-	-	-	-	349
454	9.76	1113.69	9.93	10.02	18.36	10.19	XCEL	TOP	UP3	21	MUSTARD			105	SPSR2-10	
455		1116.19	-	-	-	-	-	-	-	-	-	-	-	-	-	350
456		1118.69	-	-	-	-	-	-	-	-	-	-	-	-	-	351
457		1121.02	-	-	-	-	-	-	-	-	-	-	-	-	-	352
458	9.81	1123.50	10.01	10.03	18.19	10.19	XCEL	TOP	UP3	21	MUSTARD			106	SPSR2-10	
459		1125.83	-	-	-	-	-	-	-	-	-	-	-	-	-	353
460		1128.33	-	-	-	-	-	-	-	-	-	-	-	-	-	354
461		1130.83	-	-	-	-	-	-	-	-	-	-	-	-	-	355
462	9.75	1133.25	10.07	10.03	18.06	10.19	XCEL	TOP	UP3	21	MUSTARD			107	SPSR2-10	
463		1135.67	-	-	-	-	-	-	-	-	-	-	-	-	-	356
464		1138.17	-	-	-	-	-	-	-	-	-	-	-	-	-	357
465		1140.59	-	-	-	-	-	-	-	-	-	-	-	-	-	358
466	9.76	1143.01	10.21	10.03	17.96	10.20	XCEL	TOP	UP3	21	MUSTARD			108	SPSR2-10	
467		1145.51	-	-	-	-	-	-	-	-	-	-	-	-	-	359
468		1147.93	-	-	-	-	-	-	-	-	-	-	-	-	-	360
469		1150.35	-	-	-	-	-	-	-	-	-	-	-	-	-	361
470	9.84	1152.85	10.35	10.44	17.88	10.08	XCEL	TOP	UP3	21.5	MUSTARD			109	SPSR2-10	
471		1155.27	-	-	-	-	-	-	-	-	-	-	-	-	-	362
472		1157.69	-	-	-	-	-	-	-	-	-	-	-	-	-	363
473		1160.19	-	-	-	-	-	-	-	-	-	-	-	-	-	364
474	9.84	1162.69	10.32	10.44	17.84	10.08	XCEL	TOP	UP3	21.5	MUSTARD			110	SPSR2-10	

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED				GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE						SPRK NO.	REG SIZE	PLUG NO.
475	9.64	1165.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	365	
476		1167.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	366	
477		1169.83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	367	
478		1172.33	10.40	10.44	17.83	10.08	XCEL	TOP	UP3	21.5	MUSTARD	111	SPSR2-10					
479		1174.83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	368	
480		1177.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	369
481	9.84	1179.67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	370	
482		1182.17	10.55	10.45	17.85	10.09	XCEL	TOP	UP3	21.5	MUSTARD	112	SPSR2-10					
483		1184.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	371	
484		1187.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	372	
485	9.76	1189.51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	373	
486		1191.93	10.60	10.45	17.90	10.09	XCEL	TOP	UP3	21.5	MUSTARD	113	SPSR2-10					
487		1194.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	374	
488		1196.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	375	
489	9.76	1199.27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	376	
490		1201.69	10.73	10.86	17.97	9.97	XCEL	TOP	UP3	22	MAROON	114	SPSR2-10					
491		1204.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	377	
492		1206.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	378	
493	9.81	1209.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	379	
494		1211.50	10.80	10.86	18.08	9.97	XCEL	TOP	UP3	22	MAROON	115	SPSR2-10					
495		1213.83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	380	
496		1216.33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	381	
497	9.75	1218.83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	382	
498		1221.25	10.85	10.87	18.22	9.97	XCEL	TOP	UP3	22	MAROON	116	SPSR2-10					
499		1223.67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	383	
500		1226.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	384	
501	9.76	1228.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	385	
502		1231.01	10.98	10.87	18.38	9.98	XCEL	TOP	UP3	22	MAROON	117	SPSR2-10					
503		1233.51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	386	
504		1235.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	387	
505	9.84	1238.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	388	
506		1240.85	11.13	11.29	18.58	9.86	XCEL	TOP	UP3	22.5	MAROON	118	SPSR2-10					
507		1243.27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	389	
508		1245.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	
509	9.84	1248.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	391	
510		1250.69	10.92	10.87	18.69	9.98	XCEL	TOP	UP3	22	MAROON	119	SPSR2-10					
511		1253.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	392	
TOWER 7		179.00	1255.60	PIPE ID CHANGES FROM 6.395 TO 5.369														
512	9.35	1257.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	393	
513		1260.04	11.01	10.87	18.67	9.98	XCEL	TOP	UP3	22	MAROON	120	SPSR2-10					
514		1262.54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	394	
515		1265.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	395	
516	9.84	1267.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	396	
517		1269.88	11.42	11.30	18.65	9.87	XCEL	TOP	UP3	22.5	MAROON	121	SPSR2-10					
518		1272.38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	397	
519		1274.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	398	
520		1277.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	399	

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE										SPRK NO.	REG SIZE	PLUG NO.
521	9.84	1279.72	11.50	11.30	18.64	9.87	XCEL	TOP	UP3	22.5	MAROON				122	SPSR2-10			
522		1282.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400		
523		1284.56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	401		
524		1287.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	402		
525	9.76	1289.48	11.56	11.72	18.62	9.75	XCEL	TOP	UP3	23	CREAM				123	SPSR2-10			
526		1291.90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	403		
527		1294.40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	404		
528		1296.90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	405		
529	9.75	1299.23	11.68	11.72	18.61	9.75	XCEL	TOP	UP3	23	CREAM				124	SPSR2-10			
OVERHANG	44.87	1300.47		122.11	ENDGUN	(1)	NELSON	SR-100	.80	TB									
LINDSAY 2HP BOOSTER PUMP																			

BOOSTER PUMP AT END ADDS 30.01 PSI TO PIPE PRESSURE FOR A PRESSURE OF 48.62 PSI
 FRICTION LOSS THROUGH ENDGUN VALVE IS 4.93 PSI - ENDGUN PRESSURE IS 43.69 PSI

TOTAL GPM = 900.80
 GPA = 6.35

MINIMUM RECOMMENDED REGULATOR INLET PRESSURE IS 15.00 PSI
 WITH GRADUATED ELEVATION OF 5.00 FT THE INLET PRESSURE IS 15.88 PSI FOR SPRINKLER 111
 THIS POSITION IS THE CLOSEST TO THE MINIMUM RECOMMENDED INLET PRESSURE

HYDRAULICS SUMMARY

TOWER NUMBER	ACRES UNDER SPAN	GPM NEED	ACTUAL GPM	PERCENT DEVIATION	GPM PER ACRE	AVERAGE IN. PER HR DELIVERED UNDER SPAN	AVERAGE IN. DELIVERED FOR REVOLUTION TIME		
							36 HR	48 HR	60 HR
1	2.38	15.10	16.48	9%	6.93	0.015	0.55	0.73	0.92
2	7.00	44.43	43.68	-2%	6.24	0.014	0.50	0.66	0.83
3	11.62	73.77	73.80	0%	6.35	0.014	0.51	0.67	0.84
4	16.24	103.11	102.62	0%	6.32	0.014	0.50	0.67	0.84
5	20.86	132.45	132.54	0%	6.35	0.014	0.51	0.67	0.84
6	25.49	161.78	162.57	0%	6.38	0.014	0.51	0.68	0.85
7	30.11	191.12	190.37	0%	6.32	0.014	0.50	0.67	0.84
OVERHANG	8.27	52.51	56.63	8%	6.85	0.015	0.54	0.73	0.91
ENDGUN	18.33	125.73	122.11	5%	6.66				
TOTAL	140.30	900.00	900.80		6.42				

SUMMARY OF SPRINKLERS

5 XCEL TOP UP3 6 GOLD
1 XCEL TOP UP3 6.5 GOLD
2 XCEL TOP UP3 7 LIME
1 XCEL TOP UP3 7.5 LIME
1 XCEL TOP UP3 8 LAVENDER
2 XCEL TOP UP3 8.5 LAVENDER
1 XCEL TOP UP3 9 GREY
2 XCEL TOP UP3 9.5 GREY
2 XCEL TOP UP3 10 TURQUOISE
2 XCEL TOP UP3 10.5 TURQ
2 XCEL TOP UP3 11 YELLOW
2 XCEL TOP UP3 11.5 YELLOW
5 XCEL TOP UP3 12 RED
6 XCEL TOP UP3 12.5 RED
5 XCEL TOP UP3 13 WHITE
3 XCEL TOP UP3 13.5 WHITE
3 XCEL TOP UP3 14 BLUE
5 XCEL TOP UP3 14.5 BLUE
4 XCEL TOP UP3 15 DK BROWN
4 XCEL TOP UP3 15.5 DK BROWN
4 XCEL TOP UP3 16 ORANGE
3 XCEL TOP UP3 16.5 ORANGE
5 XCEL TOP UP3 17 DK GREEN
5 XCEL TOP UP3 17.5 DK GREEN
4 XCEL TOP UP3 18 PURPLE
3 XCEL TOP UP3 18.5 PURPLE
6 XCEL TOP UP3 19 BLACK
5 XCEL TOP UP3 19.5 BLACK
5 XCEL TOP UP3 20 DK TURQUOISE
3 XCEL TOP UP3 20.5 DK TURQ
7 XCEL TOP UP3 21 MUSTARD
5 XCEL TOP UP3 21.5 MUSTARD
6 XCEL TOP UP3 22 MAROON
3 XCEL TOP UP3 22.5 MAROON
2 XCEL TOP UP3 23 CREAM

405 PLUGS**SUMMARY OF REGULATORS**

124 Senn PSR2 10 psi

TOTAL OF 124 REGULATORS

NOZZLE POSITION CHART

XCEL TOP UP3 6 GOLD	1, 2, 3, 4, 5
XCEL TOP UP3 6.5 GOLD	6
XCEL TOP UP3 7 LIME	7, 8
XCEL TOP UP3 7.5 LIME	9
XCEL TOP UP3 8 LAVENDER	10
XCEL TOP UP3 8.5 LAVENDER	11, 12
XCEL TOP UP3 9 GREY	13
XCEL TOP UP3 9.5 GREY	14, 15
XCEL TOP UP3 10 TURQUOISE	16, 17
XCEL TOP UP3 10.5 TURQ	18, 19
XCEL TOP UP3 11 YELLOW	20, 21
XCEL TOP UP3 11.5 YELLOW	22, 23
XCEL TOP UP3 12 RED	24, 25, 30, 31, 32
XCEL TOP UP3 12.5 RED	26, 27, 29, 33, 34, 35
XCEL TOP UP3 13 WHITE	28, 36, 37, 38, 39
XCEL TOP UP3 13.5 WHITE	40, 41, 42
XCEL TOP UP3 14 BLUE	43, 44, 45
XCEL TOP UP3 14.5 BLUE	46, 47, 48, 49, 50
XCEL TOP UP3 15 DK BROWN	51, 52, 53, 54
XCEL TOP UP3 15.5 DK BROWN	55, 56, 57, 58
XCEL TOP UP3 16 ORANGE	59, 60, 61, 62
XCEL TOP UP3 16.5 ORANGE	63, 64, 66
XCEL TOP UP3 17 DK GREEN	65, 67, 68, 69, 70
XCEL TOP UP3 17.5 DK GREEN	71, 72, 73, 74, 75
XCEL TOP UP3 18 PURPLE	76, 77, 78, 79
XCEL TOP UP3 18.5 PURPLE	80, 81, 82
XCEL TOP UP3 19 BLACK	83, 84, 85, 86, 87, 88
XCEL TOP UP3 19.5 BLACK	89, 90, 91, 92, 93
XCEL TOP UP3 20 DK TURQUOISE	94, 95, 96, 97, 98
XCEL TOP UP3 20.5 DK TURQ	99, 100, 103
XCEL TOP UP3 21 MUSTARD	101, 102, 104, 105, 106, 107, 108
XCEL TOP UP3 21.5 MUSTARD	109, 110, 111, 112, 113
XCEL TOP UP3 22 MAROON	114, 115, 116, 117, 119, 120
XCEL TOP UP3 22.5 MAROON	118, 121, 122
XCEL TOP UP3 23 CREAM	123, 124

FREY PIVOT SERVICE

77 COUNTY ROAD 40
STAPLETON, NEBRASKA 69163

SEPTEMBER 30, 2025
WISH-119639
KEVIN MULVEY
NW 1/4 10-16-28
900 GPM @ 32 PSI

2002 LINDSAY GEN II - 30

SENNINGER 10 PSI REGULATORS
NO DROPS
NELSON SR-100 .80 TB

Rotation time at 100% = 10.07 Hours Or 604 minutes

Installation Chart

Page 1

Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg
1	PLUG				61	PLUG				47		23	11.5	PSR210	33	PLUG				19		51	15	PSR210
2	PLUG				62	PLUG				48	PLUG				34	PLUG				20	PLUG			
3	PLUG				63	PLUG				49	PLUG				35	PLUG				21	PLUG			
4	PLUG				64	PLUG				50	PLUG				36		37	13	PSR210	22	PLUG			
5	PLUG				65		12	8.5	PSR210	51	PLUG				37	PLUG				23		52	15	PSR210
6	PLUG				66	PLUG				52		24	12	PSR210	38	PLUG				24	PLUG			
7	PLUG				67	PLUG				53	PLUG				39	PLUG				25	PLUG			
8	PLUG				68	PLUG				54	PLUG				40		38	13	PSR210	26	PLUG			
9	PLUG				69	PLUG				55	PLUG				41	PLUG				27		53	15	PSR210
10		1	6	PSR210	70		13	9	PSR210	56	PLUG				42	PLUG				28	PLUG			
11	PLUG				71	PLUG				57		25	12	PSR210	43	PLUG				29	PLUG			
12	PLUG				72	PLUG				58	PLUG				44		39	13	PSR210	30	PLUG			
13	PLUG				73					59	PLUG				45	PLUG				31		54	15	PSR210
14	PLUG				TOWER 1					60	PLUG				46	PLUG				32	PLUG			
15		2	6	PSR210	1	PLUG				61	PLUG				47	PLUG				33	PLUG			
16	PLUG				2		14	9.5	PSR210	62		26	12.5	PSR210	48		40	13.5	PSR210	34	PLUG			
17	PLUG				3	PLUG				63	PLUG				49	PLUG				35		55	15.5	PSR210
18	PLUG				4	PLUG				64	PLUG				50	PLUG				36	PLUG			
19	PLUG				5	PLUG				65	PLUG				51	PLUG				37	PLUG			
20		3	6	PSR210	6	PLUG				66	PLUG				52		41	13.5	PSR210	38	PLUG			
21	PLUG				7		15	9.5	PSR210	67		27	12.5	PSR210	53	PLUG				39		56	15.5	PSR210
22	PLUG				8	PLUG				68	PLUG				54	PLUG				40	PLUG			
23	PLUG				9	PLUG				69	PLUG				55	PLUG				41	PLUG			
24	PLUG				10	PLUG				70	PLUG				56		42	13.5	PSR210	42	PLUG			
25		4	6	PSR210	11		16	10	PSR210	71	PLUG				57	PLUG				43		57	15.5	PSR210
26	PLUG				12					72		28	13	PSR210	58	PLUG				44	PLUG			
27	PLUG				13	PLUG				73	PLUG				59	PLUG				45	PLUG			
28	PLUG				14	PLUG				TOWER 2					60		43	14	PSR210	46	PLUG			
29	PLUG				15	PLUG				1	PLUG				61	PLUG				47		58	15.5	PSR210
30		5	6	PSR210	16	PLUG				2	PLUG				62	PLUG				48	PLUG			
31	PLUG				17		17	10	PSR210	3	PLUG				63	PLUG				49	PLUG			
32	PLUG				18	PLUG				4		29	12.5	PSR210	64		44	14	PSR210	50	PLUG			
33	PLUG				19	PLUG				5	PLUG				65	PLUG				51		59	16	PSR210
34	PLUG				20	PLUG				6	PLUG				66	PLUG				52	PLUG			
35		6	6.5	PSR210	21	PLUG				7	PLUG				67	PLUG				53	PLUG			
36	PLUG				22		18	10.5	PSR210	8		30	12	PSR210	68		45	14	PSR210	54	PLUG			
37	PLUG				23	PLUG				9	PLUG				69	PLUG				55		60	16	PSR210
38	PLUG				24	PLUG				10	PLUG				70	PLUG				56	PLUG			
39	PLUG				25	PLUG				11	PLUG				71	PLUG				57	PLUG			
40		7	7	PSR210	26	PLUG				12		31	12	PSR210	72		46	14.5	PSR210	58	PLUG			
41	PLUG				27		19	10.5	PSR210	13	PLUG				73	PLUG				59		61	16	PSR210
42	PLUG				28	PLUG				14	PLUG				TOWER 3					60	PLUG			
43	PLUG				29	PLUG				15	PLUG				1	PLUG				61	PLUG			
44	PLUG				30	PLUG				16		32	12	PSR210	2	PLUG				62	PLUG			
45		8	7	PSR210	31	PLUG				17	PLUG				3		47	14.5	PSR210	63		62	16	PSR210
46	PLUG				32		20	11	PSR210	18	PLUG				4	PLUG				64	PLUG			
47	PLUG				33	PLUG				19	PLUG				5	PLUG				65	PLUG			
48	PLUG				34	PLUG				20		33	12.5	PSR210	6	PLUG				66	PLUG			
49	PLUG				35	PLUG				21	PLUG				7		48	14.5	PSR210	67		63	16.5	PSR210
50		9	7.5	PSR210	36	PLUG				22	PLUG				8	PLUG				68	PLUG			
51	PLUG				37		21	11	PSR210	23	PLUG				9	PLUG				69	PLUG			
52	PLUG				38	PLUG				24		34	12.5	PSR210	10	PLUG				70	PLUG			
53	PLUG				39	PLUG				25	PLUG				11		49	14.5	PSR210	71		64	16.5	PSR210
54	PLUG				40	PLUG				26	PLUG				12	PLUG				72	PLUG			
55		10	8	PSR210	41	PLUG				27		35	12.5	PSR210	13	PLUG				73	PLUG			
56	PLUG				42		22	11.5	PSR210	28					14	PLUG				TOWER 4				
57	PLUG				43	PLUG				29	PLUG				15		50	14.5	PSR210	1	PLUG			
58	PLUG				44	PLUG				30	PLUG				16	PLUG				2		65	17	PSR210
59	PLUG				45	PLUG				31	PLUG				17	PLUG				3	PLUG			
60		11	8.5	PSR210	46	PLUG				32		36	13	PSR210	18	PLUG				4	PLUG			

FREY PIVOT SERVICE

77 COUNTY ROAD 40
STAPLETON, NEBRASKA 69163

2002 LINDSAY GEN II - 30

SEPTEMBER 30, 2025
WISH-119639
KEVIN MULVEY
NW 1/4 10-16-28
900 GPM @ 32 PSI

SENNINGER 10 PSI REGULATORS
NO DROPS
NELSON SR-100 .80 TB

Rotation time at 100% = 10.07 Hours Or 604 minutes

Installation Chart

Page 2

Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg
5	PLUG				65	PLUG				51	PLUG				37	PLUG			
6		66	16.5	PSR210	66		81	18.5	PSR210	52	PLUG				38	PLUG			
7	PLUG				67	PLUG				53	PLUG	96	20	PSR210	39	PLUG			
8	PLUG				68	PLUG				54	PLUG				40		111	21.5	PSR210
9	PLUG				69	PLUG				55	PLUG				41	PLUG			
10		67	17	PSR210	70		82	18.5	PSR210	56	PLUG				42	PLUG			
11	PLUG				71	PLUG				57	PLUG	97	20	PSR210	43	PLUG			
12	PLUG				72	PLUG				58	PLUG				44		112	21.5	PSR210
13	PLUG				73	PLUG				59	PLUG				45	PLUG			
14		68	17	PSR210	TOWER 5					60	PLUG				46	PLUG			
15	PLUG				1		83	19	PSR210	61		98	20	PSR210	47	PLUG			
16	PLUG				2	PLUG				62	PLUG				48		113	21.5	PSR210
17	PLUG				3	PLUG				63	PLUG				49	PLUG			
18		69	17	PSR210	4	PLUG				64	PLUG				50	PLUG			
19	PLUG				5		84	19	PSR210	65		99	20.5	PSR210	51	PLUG			
20	PLUG				6	PLUG				66	PLUG				52		114	22	PSR210
21	PLUG				7	PLUG				67	PLUG				53	PLUG			
22		70	17	PSR210	8	PLUG				68	PLUG				54	PLUG			
23	PLUG				9		85	19	PSR210	69		100	20.5	PSR210	55	PLUG			
24	PLUG				10	PLUG				70	PLUG				56		115	22	PSR210
25	PLUG				11	PLUG				71	PLUG				57	PLUG			
26		71	17.5	PSR210	12	PLUG				72	PLUG				58	PLUG			
27	PLUG				13		86	19	PSR210	73		101	21	PSR210	59	PLUG			
28	PLUG				14	PLUG				TOWER 6					60		116	22	PSR210
29	PLUG				15	PLUG				1	PLUG				61	PLUG			
30		72	17.5	PSR210	16	PLUG				2	PLUG				62	PLUG			
31	PLUG				17		87	19	PSR210	3	PLUG				63	PLUG			
32	PLUG				18	PLUG				4		102	21	PSR210	64		117	22	PSR210
33	PLUG				19	PLUG				5	PLUG				65	PLUG			
34		73	17.5	PSR210	20	PLUG				6	PLUG				66	PLUG			
35	PLUG				21		88	19	PSR210	7	PLUG				67	PLUG			
36	PLUG				22	PLUG				8		103	20.5	PSR210	68		118	22.5	PSR210
37	PLUG				23	PLUG				9	PLUG				69	PLUG			
38		74	17.5	PSR210	24	PLUG				10	PLUG				70	PLUG			
39	PLUG				25		89	19.5	PSR210	11	PLUG				71	PLUG			
40	PLUG				26	PLUG				12		104	21	PSR210	72		119	22	PSR210
41	PLUG				27	PLUG				13	PLUG				73	PLUG			
42		75	17.5	PSR210	28	PLUG				14	PLUG				TOWER 7				
43	PLUG				29		90	19.5	PSR210	15	PLUG				1	PLUG			
44	PLUG				30	PLUG				16		105	21	PSR210	2		120	22	PSR210
45	PLUG				31	PLUG				17	PLUG				3	PLUG			
46		76	18	PSR210	32	PLUG				18	PLUG				4	PLUG			
47	PLUG				33		91	19.5	PSR210	19	PLUG				5	PLUG			
48	PLUG				34	PLUG				20		106	21	PSR210	6		121	22.5	PSR210
49	PLUG				35	PLUG				21	PLUG				7	PLUG			
50		77	18	PSR210	36	PLUG				22	PLUG				8	PLUG			
51	PLUG				37		92	19.5	PSR210	23	PLUG				9	PLUG			
52	PLUG				38	PLUG				24		107	21	PSR210	10		122	22.5	PSR210
53	PLUG				39	PLUG				25	PLUG				11	PLUG			
54		78	18	PSR210	40	PLUG				26	PLUG				12	PLUG			
55	PLUG				41		93	19.5	PSR210	27	PLUG				13	PLUG			
56	PLUG				42	PLUG				28		108	21	PSR210	14		123	23	PSR210
57	PLUG				43	PLUG				29	PLUG				15	PLUG			
58		79	18	PSR210	44	PLUG				30	PLUG				16	PLUG			
59	PLUG				45		94	20	PSR210	31	PLUG				17	PLUG			
60	PLUG				46	PLUG				32		109	21.5	PSR210	18		124	23	PSR210
61	PLUG				47	PLUG				33	PLUG								
62		80	18.5	PSR210	48	PLUG				34	PLUG								
63	PLUG				49		95	20	PSR210	35	PLUG								
64	PLUG				50	PLUG				36		110	21.5	PSR210					

PRECIPITATION CHART FOR FULL CIRCLE

WISH-119639

SEPTEMBER 30, 2025

DEALER - FREY PIVOT SERVICE

IRRIGATOR - KEVIN MULVEY

FIELD - NW 1/4 10-16-28

TOTAL LENGTH PIPE = 1300.47 SYSTEM PRESSURE = 32 PSI
GPM UNDER PIPE = 778.69 TOTAL GPM = 900.80
ACRES UNDER PIPE = 121.97
RANGE OF ENDGUN = 94.31 RUN FOR MINIMUM PRESSURE
GPM OF ENDGUN = 122.11
ACRES UNDER ENDGUN = 18.33
WATERING LENGTH = 1394.78

MOTOR SIZE (HP) = 3/4
LOADED MOTOR RPM = 1750
CENTER GEAR BOX RATIO = 40
WHEEL GEAR BOX RATIO = 50
TIRE SIZE = 11.2 X 38
LAST TOWER SPEED (FPM) = 13.06

PRECIPITATION DATA FIGURED WITH ENDGUN RUNNING

PRECIPITATION BASED			% TIMER BASED		
PRECIPITATION INCHES	% TIMER SETTING	TIME HOURS	% TIMER SETTING	PRECIPITATION INCHES	TIME HOURS
.14	100.00	10.07 - 604(min)	100.00	.14	10.07 - 604(min)
.20	71.01	14.18	90.00	.16	11.19
.25	56.81	17.72	80.00	.18	12.58
.30	47.34	21.27	70.00	.20	14.38
.40	35.50	28.36	60.00	.24	16.78
.50	28.40	35.45	50.00	.28	20.14
.60	23.67	42.53	45.00	.32	22.37
.70	20.29	49.62	40.00	.36	25.17
.75	18.94	53.17	35.00	.41	28.77
.80	17.75	56.71	30.00	.47	33.56
.90	15.78	63.80	25.00	.57	40.27
1.00	14.20	70.89	20.00	.71	50.34
1.25	11.36	88.61	15.00	.95	67.12
1.50	9.47	106.34	10.00	1.42	100.68
1.75	8.12	124.06	5.00	2.84	201.36

CAUTION: The relationship between precipitation rate, timer setting, and hours per revolution provided above are theoretical numbers based on the data list at the top of the page. Actual precipitation rates may vary due to the following field and machine conditions: wind drift; evaporation; tire slippage, tire loaded radius; drive train efficiency; elevation changes; soil type. Due to these varying field and machine conditions the above chart should be used as a guide only.