

UMAT
3965

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5/35 - 120(A)

AUG 24 1951
STATE ENGINEER
SALEM, OREGON

Application No. U-403
Permit No. U-373
Well No. 1, Umatilla Canning Co.
UMATILLA CO

REPORT ON COMPLETION OF WELL

(Note: This report should be submitted to the State Engineer, Salem, Oregon, as soon as possible after the well is completed. If more than one well is covered by this permit, a separate report shall be filed for each)

Date of Report August 22, 1951

1. Location of well: SW $\frac{1}{4}$ of SE $\frac{1}{4}$ of Section 12 Twp. 5N Rge. 35 E. W. M.
2. Name of nearest natural surface stream Walla Walla River
3. Distance from well to that stream: Approx. 4000 feet.
4. If the well is less than 1300 feet from a natural surface stream, give the difference in elevation between the ground surface at the well and the lowest point in stream channel: _____ feet.
5. Date of beginning drilling or digging. January 11, 1951
6. Date well was completed June 22, 1951

LOG OF MATERIALS ENCOUNTERED

Character of Material	Depth at which encountered	Thickness of stratum
Yellow cement gravel	At surface 0 ft.	41 ft.
Broken Basalt & Blue Clay	41 ft.	285 ft.
Medium gray basalt & alternate clay & mud	285 ft.	421 ft.
Broken gray basalt	421 ft.	562 ft.
Black basalt & gray basalt	562 ft.	751 ft.
Medium black basalt - (2ft. Hard black basalt 816-818 ft)	751 ft.	878 ft.
Gray hard basalt	878 ft.	881 ft.
Medium black basalt	881 ft.	894 ft.
Hard black basalt	894 ft.	913 ft.
Remarks: Medium black basalt	913 ft.	918 ft.

WELL INFORMATION

8. Diameter of well see below inches. Depth of well 918 feet.
9. Depth at which water was first encountered 90 feet.
10. Water level when completed: 205 feet below ground surface.
11. Additional information regarding well; such as soil conditions, quick sand, caves, obstructions, rock, etc.: Some caving - 321 ft to 500 ft.

8. 24" from 0 to 104 ft.
- 20" from 104 to 321 ft.
- 16" from 321 to 690 ft.
- 12" from 690 to 918 ft.

5N/35-12QA)
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PUMP INFORMATION

- 12. Manufacturer of pump: A. D. Cook, Inc.
- 13. Address: Lawrenceburg, Indiana
- 14. Data on name or base plate: Serial No. 13254
Cook Rotation Pump
- 15. Data on pump bowl assembly: TR 5107 12 TR 527
26 12 TR 5280
- 16. Size of pump: 8" Turbine
- 17. Rated capacity: 950 gallons per minute.
- 18. Rated speed: 1765 revolutions per minute.
- 19. Number of stages: 8
- 20. Size of intake pipe: 8"
- 21. Size of discharge pipe: 8"
- 22. Length of intake pipe: 290 feet column, 25 feet bowl assembly, suction and strainer
- 23. Length of discharge pipe: 161.65 ft.
- 24. Suction lift: (difference in elevation between water surface in well and pump) 205 feet
- 25. Discharge lift: (difference in elevation between pump and end of discharge line) Hardly any -- pipe runs slightly downhill
- 26. Depth of pump intake below ground surface: 310 feet.
- 27. Remarks: This pump will be exchanged or worked over to that we can pump between 1400 and 1500 g.p.m. next season.

MOTOR OR ENGINE INFORMATION

- 28. Name of manufacturer: General Electric
- 29. Address: ~~Schenectady~~ Schenectady, N. Y.
- 30. Type of motor or engine: Electric Induction Motor
- 31. Data on name or base plate: Model 5K445A1A Service Factor 1.15 at Rated Volts 60 cycles 220/440 volts Type K Code F Frame 445 3 phase 60 cy
FL AMP 181/90.5 FL Speed 1765 No. WGJ6873648 TRYCLAD INDUCTION MOTOR
- 32. Rated horsepower: 75 H.P.
- 33. Rated speed of motor or engine: 1765 revolutions per minute.
- 34. Rated Capacity of Pump (with described motor)

<u>950</u>	<u>g.p.m. at</u>	<u>205</u>	<u>ft. head</u>
<u>800</u>	<u>g.p.m. at</u>	<u>300</u>	<u>ft. head</u>
<u>700</u>	<u>g.p.m. at</u>	<u>350</u>	<u>ft. head</u>
	<u>g.p.m. at</u>		<u>ft. head</u>
	<u>g.p.m. at</u>		<u>ft. head</u>
- 35. Remarks: We intend to trade this pump and motor or have it worked over next year (before June 1952) so that we can pump 1400-1500 g.p.m.

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54/35-120A

CAPACITY TEST

- 36. Date of test: 8/16 & 8/17, 1951 37. Temperature of water 60 °F. or °C.
- 38. Motor speed during test: From 1250 - 1800 R.P.M.
- 39. Test made by (weir, tank or other means): Weir

DIRECT READING GAUGE	PERIOD	TOTAL HEAD	*Total lift in feet	Gallons per min.	°Feet to water level	Draw-down	+Time
205	lbs.; Gauge at pump	Total <u>205</u> ft. in.	<u>Static water level</u> ft.				M. 8/16
215	lbs.; Gauge at pump	Total <u>215</u> ft. in.		336	215 ft.	10 ft.	7:15 AM.
244	lbs.; Gauge at pump	Total <u>244</u> ft. in.		795	244 ft.	39 ft.	8:30 AM.
266	lbs.; Gauge at pump	Total <u>266</u> ft. in.		1220	266 ft.	61 ft.	10:30 AM.
287	lbs.; Gauge at pump	Total <u>287</u> ft. in.		1407	287 ft.	82 ft.	12:30 PM.
287	lbs.; Gauge at pump	Total <u>287</u> ft. in.		1407	287 ft.	82 ft.	5:30 PM.
270	lbs.; Gauge at pump	Total <u>270</u> ft. in.		1220	270 ft.	65 ft.	7:30 PM.
285	lbs.; Gauge at pump	Total <u>285</u> ft. in.		1407	285 ft.	80 ft.	9:00 PM.
285	lbs.; Gauge at pump	Total <u>285</u> ft. in.		1407	285 ft.	80 ft.	12:00 M. Midnight
285	lbs.; Gauge at pump	Total <u>285</u> ft. in.		1407	285 ft.	80 ft.	4:00 AM. 8/17
270	lbs.; Gauge at pump	Total <u>270</u> ft. in.		1312	270 ft.	65 ft.	4:10 AM.
263	lbs.; Gauge at pump	Total <u>263</u> ft. in.		1220	263 ft.	58 ft.	4:20 AM.
264	lbs.; Gauge at pump	Total <u>264</u> ft. in.		1220	264 ft.	59 ft.	6:00 AM.
295	lbs.; Gauge at pump	Total <u>295</u> ft. in.		1501	295 ft.	90 ft.	6:10 AM.
295	lbs.; Gauge at pump	Total <u>295</u> ft. in.		1501	295 ft.	90 ft.	6:18 AM.
209	lbs.; Gauge at pump	Total <u> </u> ft. in.		(RECOVERY)	ft.	ft.	6:23 a.m.
	lbs.; Gauge at pump	Total <u> </u> ft. in.			ft.	ft.	M.

* Difference in elevation between water level in well and outlet of pump test line.

- ° Distance from ground level to water surface in well.
- ▣ Distance water level is lowered during time interval.
- + Hour and minute at which observation was made.

- 41. Installation will work efficiently under normal head of 325 ft.
- 42. Water is discharged into: Main lines, Umatilla Canning Company Plant.
- 43. Was water lowered to pump intake by test? Yes - deliberately.
- 44. Remarks: Didn't have enough column on to go beyond 1501 G.P.M. on test.
Had only 90 feet of column beyond static water level of 205 feet.
Well recovered to static water level from 6:18 a.m. to 6:23 a.m. 8/17/51.
Recovery rate of 5 minutes.

GENERAL INFORMATION

- 45. Name of contractor or other party who drilled or dug well: A. A. Durand & Son
Address: 115 Rees Avenue, Walla Walla, Washington
- 46. Pump and motor were installed by: Pump, Pipe, & Power Co., Portland, Oregon
Address:
- 47. Capacity test was made by: A. A. Durand & Son, Walla Walla, Washington
Address:
- 48. General remarks: