



Oregon

Kate Brown, Governor

Water Resources Department

725 Summer St NE, Ste A

Salem, OR 97301

Phone: 503-986-0900

Fax: 503-986-0904

December 2, 2020

ROBERT STADELI WWC# 1523
HOLT SERVICES INC
PO BOX 1659
MILTON, WA 97381

FINAL ORDER

Dear Mr. Stadel:

The Special Standards Request Form you submitted for owner: US Army, Start Card number 1050122 is hereby approved for the following: You may decommission this water supply well (Original Well Report UMAT 1544/Alteration Report UMAT 56114) as described on your Special Standards Request Form dated November 20, 2020, with a couple of stipulations as described below:

- *Permanently abandon the well by pumping with cement grout from bottom of well to lands surface.*
- *The original 16-inch casing shall be over-drilled with a minimum 20-inch diameter bit to at least 18 feet below lands surface and resealed with an approved grout.*
- *Cut and remove casing below grade if desired.*

All other well abandonment standards apply as required under Oregon Administrative Rules 690-220. A copy of your Special Standards Request Form is enclosed.

If you have any questions concerning this letter, I may be contacted at (503) 986-0852, or by e-mail at Travis.N.Kelly@oregon.gov.

Sincerely,

Travis Kelly, Coordinator
Well Construction Program
Well Construction and Compliance Section

enclosure

cc: Erik Thomasser, Well Inspector, NC Region

This is a final order in other than contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.



Oregon Water Resources Department
 725 Summer Street NE, Suite A
 Salem Oregon 97301-1266
 (503) 986-0900
 www.wrd.state.or.us

Special Standards Request Form

REQUEST FOR WRITTEN APPROVAL TO USE CONSTRUCTION METHODS NOT INCLUDED IN OREGON ADMINISTRATIVE RULES 690-200 THROUGH 690-240

Before the request can be considered, this form must be completed. Requests shall be submitted to the Well Construction Program Coordinator, Water Resources Department, 725 Summer Street NE, Suite A, Salem OR 97301-1266. Requests may also be considered by the appropriate Regional Manager.

Date of request: Nov.20, 2020 **Oral approval date (if applicable):** _____

Bonded Well Constructor (name, license #, and mailing address): Robert Stadel

1523, PO Box 1659 Milton, WA 98354

(1) Location of Well: NW 1/4 SW 1/4 Tax lot 200 Section 22,
 Township 4 N, Range 27 E, Umatilla County
 Address at well site: C St. U.S. Army Depot

(2) Start Card Number(s)(for work to be done): 1050122

(3) Name and Address of Land Owner: U.S. Army

(4) Distance to the nearest septic tank, drainfield, closed sewage line (if water supply well)
N/A

(5) The unusual site conditions which necessitate this request: 10" casing was cemented in
place through a grout shoe bottom up, making perforating not an option. Well Video was performed on 11-11-20
that confirmed cement at bottom of 10"

(6) The proposed construction methods that the bonded well constructor believes will be adequate for this well: (attach additional pages if needed)

Over drill 16" with 20" casing to a depth of 20' Trimmie neat cement from bottom to surface if needed. Run trimmie to where it stops at appx. 312'
Pump neat cement from 312' to surface

- (7) Diagram showing the pertinent features of the proposed well design and construction:
(attach additional pages if needed)

PLEASE NOTE:

- (1) The Well Construction Standards serve to protect ground water resources. By approving and issuing this special construction standard the Oregon Water Resources Department is not representing that a well constructed in accordance with this condition will maintain structural integrity or that it meets engineering standards. The well constructor/or landowner is responsible for ensuring that a well is constructed in a manner that protects ground water resources as required under Oregon Administrative Rules 690-200 through 690-240.
- (2) If it should be determined at some future date that the well, due to its construction, is allowing ground water contamination, waste or loss of artesian pressure, the undersigned shall return to the site and rectify the problem.
- (3) If oral approval was granted, a written request must be submitted to the Department either within three (3) working days of the date of oral approval or prior to the completion of the associated well work. Failure to submit a written request as described above may void prior oral approval.

I have read and understand the above information. I further attest that the information provided is accurate to the best of my knowledge.

Bonded Constructor Signature: _____



STATE ENGINEER
Salem, Oregon

UMAT
1544

OBSERVATION WELL
Well Record

STATE WELL NO. 4N/27-22pl ^{cad}
COUNTY Umatilla
APPLICATION NO.

OWNER: U.S. Army Installation

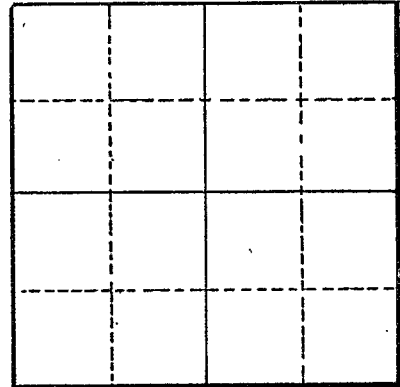
MAILING ADDRESS:

LOCATION OF WELL: Owner's No. 1

CITY AND STATE:

NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 22 T. 4 N. S., R. 27 E. W., W.M.

Bearing and distance from section or subdivision corner



Section

Altitude at well 585 ft.

TYPE OF WELL: Drilled Date Constructed

Depth drilled 327 ft. Depth cased 150 ft.

CASING RECORD: 12 inches.

FINISH:

AQUIFERS: Basalt

WATER LEVEL: 18 ft. below land surface - 5/1/53

PUMPING EQUIPMENT: Type Turbine H.P.
Capacity 1,000 G.P.M.

WELL TESTS:
Drawdown ft. after hours G.P.M.
Drawdown ft. after hours G.P.M.

USE OF WATER Industrial and Public Supply Temp. °F., 19

SOURCE OF INFORMATION USGS report - Umatilla River Basin

DRILLER or DIGGER

ADDITIONAL DATA:
Log Water Level Measurements Chemical Analysis X Aquifer Test

REMARKS:

STATE ENGINEER
Salem, Oregon

UMAT
1544

State Well No. ^{cad} LN/27-2271
County ~~Wasco~~ UMATILLA
Application No. _____

Well Log

Owner: U. S. Army Ordnance Depot Owner's No. 1

Driller: A. A. Durand and Son Date Drilled 1941

| CHARACTER OF MATERIAL | (Feet below land surface) | | Thickness (feet) |
|--------------------------------|---------------------------|-----|------------------|
| | From | To | |
| Dug pit, no record | 0 | 4 | 4 |
| Glaciofluvial deposits: | | | |
| Gravel and sand, loose | 4 | 61 | 57 |
| Gravel and boulders | 61 | 63 | 2 |
| Gravel | 63 | 66 | 3 |
| Gravel and clay | 66 | 87 | 21 |
| Gravel, fine | 87 | 102 | 15 |
| Gravel and sand | 102 | 104 | 2 |
| Gravel, fine, loose, and sand | 104 | 149 | 45 |
| "Shale" | 149 | 151 | 2 |
| Gravel | 151 | 157 | 6 |
| Columbia River basalt: | | | |
| Basalt, black | 157 | 160 | 3 |
| Gravel, cemented | 160 | 180 | 20 |
| Basalt, black | 180 | 195 | 15 |
| Basalt and clay | 195 | 200 | 5 |
| Basalt | 200 | 206 | 6 |
| Basalt, black, hard | 206 | 263 | 57 |
| Basalt, gray, hard | 263 | 295 | 32 |
| Basalt, black, with clay | 295 | 301 | 6 |
| Basalt, gray, hard | 301 | 308 | 7 |
| Basalt, black, honeycomb | 308 | 318 | 10 |
| Basalt, gray very hard | 318 | 327 | 9 |

STATE ENGINEER
Salem, Oregon

UMAT 1544

State Well No. ^{cad} 4N/27-22pl

County Umatilla

Application No.

Chemical Analysis

OWNER U.S. Army Installation OWNER'S NO.

ANALYST Chilton Laboratories Address Portland

Date of Collection 4/26/41

Point of Collection

| | P.P.M. | E.P.M. |
|--|--------|--------|
| Silica (SiO ₂) | XX | |
| Iron (Fe) Total | .15 | |
| Manganese (Mn) | | |
| Calcium (Ca) | 38. | |
| Magnesium (Mg) | 11. | |
| Sodium (Na) | | |
| Potassium (K) | | |
| Bicarbonate (HCO ₃) | 148. | |
| Carbonate (CO ₃) | | |
| Sulfate (SO ₄) | 11. | |
| Chloride (Cl) | 11. | |
| Fluoride (F) | | |
| Nitrate (NO ₃) | | |
| Boron (B) | | |
| Dissolved Solids | | |
| Hardness as CaCO ₃ | 140. | |
| Specific Conductance (Micromhos at 25°C) | | |
| pH | 7.7 | |
| Percent Sodium | | |
| Sodium Absorption Ratio (S.A.R.) | | |
| CLASS | | |

Water Level Record

OWNER: Umatilla Army Depot

OWNER'S NO. 1

Description of measuring point: S.W. 1/4 Sec. 22 T4N R27E Umatilla

| Date | Water Level Feet (below) Land Surface | Remarks | Date | Water Level Feet (below) Land Surface | Remarks |
|---------|--|---------|--------|--|---------|
| Mar. 50 | 90 | | Jan 54 | 80 | |
| Apr | 90 | | Feb | 80 | |
| May | 90 | | Mar | 80 | |
| Jun | 90 | | Apr | 81 | |
| Jul | 90 | | May | 81 | |
| Aug | 90 | | Jun | 80 | |
| Sep | 90 | | Jul | 80 | |
| Oct | 90 | | Aug | 84 | |
| Nov | 90 | | Sep | 83 | |
| Dec | 90 | | Oct | 84 | |
| Jan 51 | 90 | | Nov | 84 | |
| Feb | 90 | | Dec | 84 | |
| Mar | 90 | | Jan 55 | 84 | |
| Apr | 90 | | Feb | 85 | |
| May | 90 | | Mar | 86 | |
| Jun | 90 | | Apr | 86 | |
| | | | May | 85 | |
| | | | Jun | 85 | |

REMARKS: Records unavailable July 1951 thru December 1953
No static levels recorded before March 1950.

STATE ENGINEER
Salem, Oregon

State Well No.

County

Application No. 4

Water Level Record

OWNER: Umatilla Army Depot

OWNER'S NO. 1

Description of measuring point: S.W. 1/4 Sec. 22 T4N R27E Umatilla

| Date | Water Level Feet (above) (below) Land Surface | Remark | Date | Water Level Feet (above) (below) Land Surface | Remarks |
|--------|---|--------|--------|---|--------------|
| Jul 55 | 85 | | Jan 57 | 84 | |
| Aug | 85 | | Feb | 84 | |
| Sep | 84 | | Mar | 84 | |
| Oct | 91 | | Apr | 84 | |
| Nov | 92 | | May | 84 | |
| Dec | 92 | | Jun | 84 | |
| Jan 56 | 85 | | Jul | 83 | |
| Feb | 86 | | Aug | 83 | |
| Mar | 86 | | Sep | 83 | |
| Apr | 86 | | Oct | 83 | |
| May | 86 | | Nov | 83 | |
| Jun | 85 | | Dec | 83 | |
| Jul | 85 | | Jan 58 | 84 | |
| Aug | 84 | | Feb | 84 | |
| Sep | 84 | | Mar | 84 | |
| Oct | 84 | | Apr | | Pump Out |
| Nov | 79 | | May | | Air Line Out |
| Dec | 84 | | Jun | | Air Line Out |

REMARKS:

Water Level Record

OWNER: Uastilla Army Depot

OWNER'S NO. 1

Description of measuring point: S.W. 1/4 Sec. 22 T4N R27E Uastilla

| Date | Water Level Feet <small>(above) (below) Land Surface</small> | Remarks | Date | Water Level Feet <small>(above) (below) Land Surface</small> | Remarks |
|--------|--|--------------|--------|--|---------|
| Jul 58 | | Air Line Out | Jan 60 | 90 | |
| Aug | 89 | | Feb | 90 | |
| Sep | 89 | | Mar | 90 | |
| Oct | 89 | | Apr | 91 | |
| Nov | 89 | | May | 91 | |
| Dec | 89 | | Jun | 90 | |
| Jan 59 | 90 | | Jul | 89 | |
| Feb | 90 | | Aug | 89 | |
| Mar | 91 | | Sep | 88 | |
| Apr | 91- | | Oct | 89 | |
| May | 91 | | Nov | 89 | |
| Jun | 90 | | Dec | 89 | |
| Jul | 89 | | Jan 61 | 90 | |
| Aug | 89 | | Feb | 90 | |
| Sep | 88 | | Mar | 90 | |
| Oct | 88 | | Apr | 91 | |
| Nov | 89 | | May | 90 | |
| Dec | 89 | | Jun | 89 | |

REMARKS: _____

Water Level Record

OWNER: **Umatilla Army Depot**

OWNER'S NO. **1**

Description of measuring point: **S. W. $\frac{1}{4}$ Sec. 22 T4N R27E Umatilla**

| Date | Water Level Feet (below) Land Surface | Remarks | Date | Water Level Feet (below) Land Surface | Remarks |
|--------|--|---------|--------|--|------------------|
| Jul 61 | 89 | | Jan 63 | 92 | |
| Aug | 89 | | Feb | 92 | |
| Sep | 89 | | Mar | 92 | |
| Oct | 89 | | Apr | 92 | |
| Nov | 89 | | May | 91 | |
| Dec | 90 | | Jun | 91 | |
| Jan 62 | 90 | | Jul | 90 | |
| Feb | 90 | | Aug | 90 | |
| Mar | 91 | | Sep | 91 | |
| Apr | 91 | | Oct | 91 | |
| May | 90 | | Nov | 91 | |
| Jun | 90 | | Dec | 91 | |
| Jul | 90 | | Jan 64 | 92 | |
| Aug | 90 | | Feb | 92 | |
| Sep | 89 | | Mar | | Under Repair |
| Oct | 91 | | Apr | 90 | |
| Nov | 91 | | May | 90 | |
| Dec | 91 | | Jun | | Air Line Plugged |

REMARKS: _____

Water Level Record

OWNER: Umatilla Army Depot

OWNER'S NO. 1

Description of measuring point: S. W. 1/4 Sec. 22 T4N R27E Umatilla

| Date | Water Level Feet (below) Land Surface | Remarks | Water Level Feet (above) Land Surface | Remarks |
|--------|---|------------------|---|---------|
| Jul 64 | | Air Line Plugged | | |
| Aug | 94 | | | |
| Sep | 94 | | | |
| Oct | 94 | | | |
| Nov | 94 | | | |
| Dec | 94 | | | |
| Jan 65 | 95 | | | |
| Feb | 95 | | | |
| Mar | 94 | | | |
| Apr | 94 | | | |
| May | 94 | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

REMARKS:

M E M O

On January 27, 1964, Mr. Robert DeBow and myself contacted Mr. Williams at the U. S. Army Ordnance Depot at Ordnance, Oregon. We conducted a current meter survey of Well #~~2~~ in Building #25 at the Depot. The well ~~depth~~ ^(K-1000000) 4N/27-22~~01~~ ^{4-1-32744?} was measured and found to be 325 feet deep not ~~360~~ ³²⁷ feet as reported. The static water level was 78.64 feet below top of casing at land surface. The water level was reported to be 100 feet below land surface datum at date of construction in 1941. In 1951 the static level was reported 90 feet below land surface datum and in March 1963 it was 90 feet. It is not known whether or not these earlier measurements were made with air lines or tapes. The most recent depth of 78.64 was measured by electric tape and may represent the most accurate water level data in the area.

The well did not reveal any zones of detectable ground-water movement. The current meter was placed at numerous depth in the well and no water movement was noted.

Mr. Williams said that another well will be opened up in about 3 weeks and that they would like us to return for a similar test. This will be in the latter part of February 1964. Submersible pumps are being installed for lower pumping rates and lower horse power requirements.

I mentioned water rights on these wells and will send them the ground water usual literature.

By

Wm. S. Bartholomew,
Geologist

Umat 56114

STATE OF OREGON
WATER SUPPLY WELL REPORT

WELL I.D. # L 54978
START CARD # 146104

(as required by ORS 537.765)
Instructions for completing this report are on the last page of this form.

(1) LAND OWNER Well Number 2
Name U.S. Army Depot
Address Heremiston OR Army Depot
City Heremiston State OR Zip 97320

(2) TYPE OF WORK
 New Well Deepening Alteration (repair/recondition) Abandonment

(3) DRILL METHOD:
 Rotary Air Rotary Mud Cable Auger
 Other _____

(4) PROPOSED USE:
 Domestic Community Industrial Irrigation
 Thermal Injection Livestock Other _____

(5) BORE HOLE CONSTRUCTION:
Special Construction approval Yes No Depth of Completed Well 327 ft.
Explosives used Yes No Type _____ Amount _____

| HOLE | | SEAL | | | |
|----------|---------|----------|---------|-----------------|--|
| Diameter | From To | Material | From To | Sacks or pounds | |
| 10" | 12 | 300 | 300 | 10 yds. | |

How was seal placed: Method A B C D E
 Other Cementing shoe cap to surface
Backfill placed from _____ ft. to _____ ft. Material _____
Gravel placed from _____ ft. to _____ ft. Size of gravel _____

(6) CASING/LINER:
Diameter From To Gauge Steel Plastic Welded Threaded
Casing: 10' +1 300 375
Liner: _____
Drive Shoe used Inside Outside None
Final location of shoe(s) 300'

(7) PERFORATIONS/SCREENS:
 Perforations Method _____
 Screens Type _____ Material _____
From To Slot size Number Diameter Tele/pipe size Casing Liner

(8) WELL TESTS: Minimum testing time is 1 hour
 Pump Bailor Air Flowing Artesian
Yield gal/min 25 Drawdown 19 Drill stem at _____ Time 1 hr.

Temperature of water 56 Depth Artesian Flow Found _____
Was a water analysis done? Yes By whom _____
Did any strata contain water not suitable for intended use? Too little
 Salty Muddy Odor Colored Other _____
Depth of strata: _____

(9) LOCATION OF WELL by legal description:
County Umatilla Latitude _____ Longitude _____
Township 4N N or S Range 27 Ebr W. WM.
Section 22 NW 1/4 SE 1/4
Tax Lot 200 Lot _____ Block _____ Subdivision _____
Street Address of Well (or nearest address) off 84

(10) STATIC WATER LEVEL:
103 ft. below land surface. Date 4-29-2008
Artesian pressure _____ lb. per square inch Date _____

(11) WATER BEARING ZONES:
Depth at which water was first found _____

| From | To | Estimated Flow Rate | SWL |
|------|----|---------------------|-----|
| | | | |
| | | | |
| | | | |
| | | | |

(12) WELL LOG:
Ground Elevation _____

| Material | From | To | SWL |
|--------------------------|------|----|-----|
| Cir Casg | | | 103 |
| W cement shoe to surface | | | |
| 300' | | | |

RECEIVED MAY 01 2008 WATER RESOURCES DEPT SALEM OREGON
RECEIVED MAY 22 2008 WATER RESOURCES DEPT SALEM OREGON

Date started 4-17-2008 Completed 4-29-2008

(unbonded) Water Well Constructor Certification:
I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.
Signed Jody L. Cap... WWC Number 1669 Date 4-29-2008

(bonded) Water Well Constructor Certification:
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
Signed Jody L. Cap... WWC Number 1669 Date 4-29-2008