



Memo

Sent via e-mail: Mark.Pugh@deq.oregon.gov

To: Mark Pugh, RG
Oregon Department of Environmental Quality
700 NE Multnomah St., Suite 600
Portland, OR 97232

Project: US-EI-G685.2011

From: John Kuiper, RG, Principal Geologist

c: Ryan Webb, PE
Engineering and Planning Manager
Confederated Tribes of the Grand Ronde

Tel: (503) 704-7793

Date: May 9, 2025

Subject: Work Plan: On-Site Production Well Repair, Former Blue Heron Paper Company Mill
Oregon City, Oregon

On behalf of the Confederated Tribes of the Grand Ronde (CTGR), WSP USA Inc. (WSP) has prepared this memorandum to summarize the proposed work plan for repairing the on-site production well (State Well Report: CLAC 04419; Well Label: 155955) at the former Blue Heron Paper Company mill site (Site) in Oregon City, Oregon, with the intent to put it back into service in the future for irrigation uses on the property. The well, which was constructed in 1940, is located near Building 39 at the Site (Figure 1). As stated in the High Priority Remedial Actions section of the Prospective Purchaser Agreement between CTGR and the Oregon Department of Environmental Quality (DEQ) (effective August 15, 2019): "...the Prospective Purchaser will evaluate, secure and/or properly abandon the onsite production well."

WSP and an Oregon-licensed well constructor from Westerberg Drilling Inc. (Westerberg) have evaluated the physical condition of the well. Through this evaluation, we have confirmed that the current well depth is 242 feet below ground surface (bgs), that the well was constructed with a 12-inch-diameter steel casing that extends from the ground surface to approximately 17 feet bgs, and that the casing is seated in basalt bedrock from 14 ft bgs to the bottom of the casing. (Based on the original well record (attached), the drilled depth in 1940 was reported to be 251 feet bgs.) The well bore is uncased from the bottom of the casing to the bottom of the well, and it extends through a thick sequence of basalt flows of the Sentinel Bluffs Member of the Grand Ronde Formation. Results from sampling the well in March 2023 indicated that groundwater in the well is not significantly impacted by Site contaminants of concern (COCs). Only very low levels of a few COCs were detected, and well water meets drinking water standards for the COCs detected.

WSP and Westerberg also consulted with the Oregon Water Resources Department (WRD) Well Construction Program for guidance regarding the potential repairs needed to be able to put the well back into use. To aid WRD's assessment of well condition, WSP provided downhole video records obtained by Westerberg in March 2023 and arranged for a WRD well inspector to visually inspect the well and collect additional data on January 2, 2025. During the site visit, the inspector attached a contemporary well ID label (Well Label 155955) to the well. Following WRD's evaluation of the well condition and further discussion with Westerberg, WRD determined that if the well casing is extended to 12 inches above the ground surface, the well may be preserved and put back into service with no other alterations or modifications.

In addition to this determination from WRD, during the down-hole surveys conducted by Westerberg in March 2023 and by WRD on January 2, 2025, two pieces of pipe (possibly portions of a severed pump column) were found to be sitting in the well at depths of 187 and 225 feet bgs. These remnants need to be removed to make the well serviceable.



WORK PLAN FOR WELL REPAIR AND CLEANOUT

The proposed work plan for repairing the well is as follows:

- Excavate around the well head to gain access to the casing below the ground surface. Trim off the deteriorated portion of the 12-inch-diameter casing and weld on a piece of new 12-inch casing to extend the top of the casing to a minimum of 12 inches above the ground surface. Install a secure lid at the top of the well and backfill the excavation around the casing.
- Remove the pieces of pipe situated in the well at approximately 187 feet and 225 feet bgs.
- WSP's drilling contractor (Westerberg) will obtain a start card for the well repair prior to starting this work.

The work outlined above will be performed by an Oregon-licensed well constructor.

[Note that if it is discovered that the entire casing is deteriorated and cannot be extended as described above, WSP will recommend an alternate approach for completing the well repair work (over-drilling option) that will be described in a work plan addendum. Over-drilling, if required, would not be able to be completed until after the adjacent buildings have been demolished/removed since there is currently insufficient space around the well to accommodate the drilling equipment.]

SCHEDULE

WSP and Westerberg have confirmed that the space around the well is sufficient for the well repair work as described herein. After receipt of DEQ approval of the work plan, we estimate that this work can be performed within 4 to 6 weeks. WSP will submit a memorandum describing the well repair and cleanout for DEQ review approximately four weeks after the field work has been completed.

CLOSING

Please contact John Kuiper with any questions you may have (mobile: 503-704-7793, or office: 503-639-3400).

LIMITATIONS

Please be aware that WSP has not been provided with information regarding past operation or maintenance of the on-site production well. WSP services have been performed in accordance with the normal and reasonable standard of care exercised by similar professionals performing services under similar conditions in similar geographic locations. Except for our stated standard of care, no other warranties or guarantees are offered as part of WSP's contracted services.

Sincerely,

WSP USA Inc.

Denise Mills, RG
Technical Director, Hydrogeology

Reviewed by:

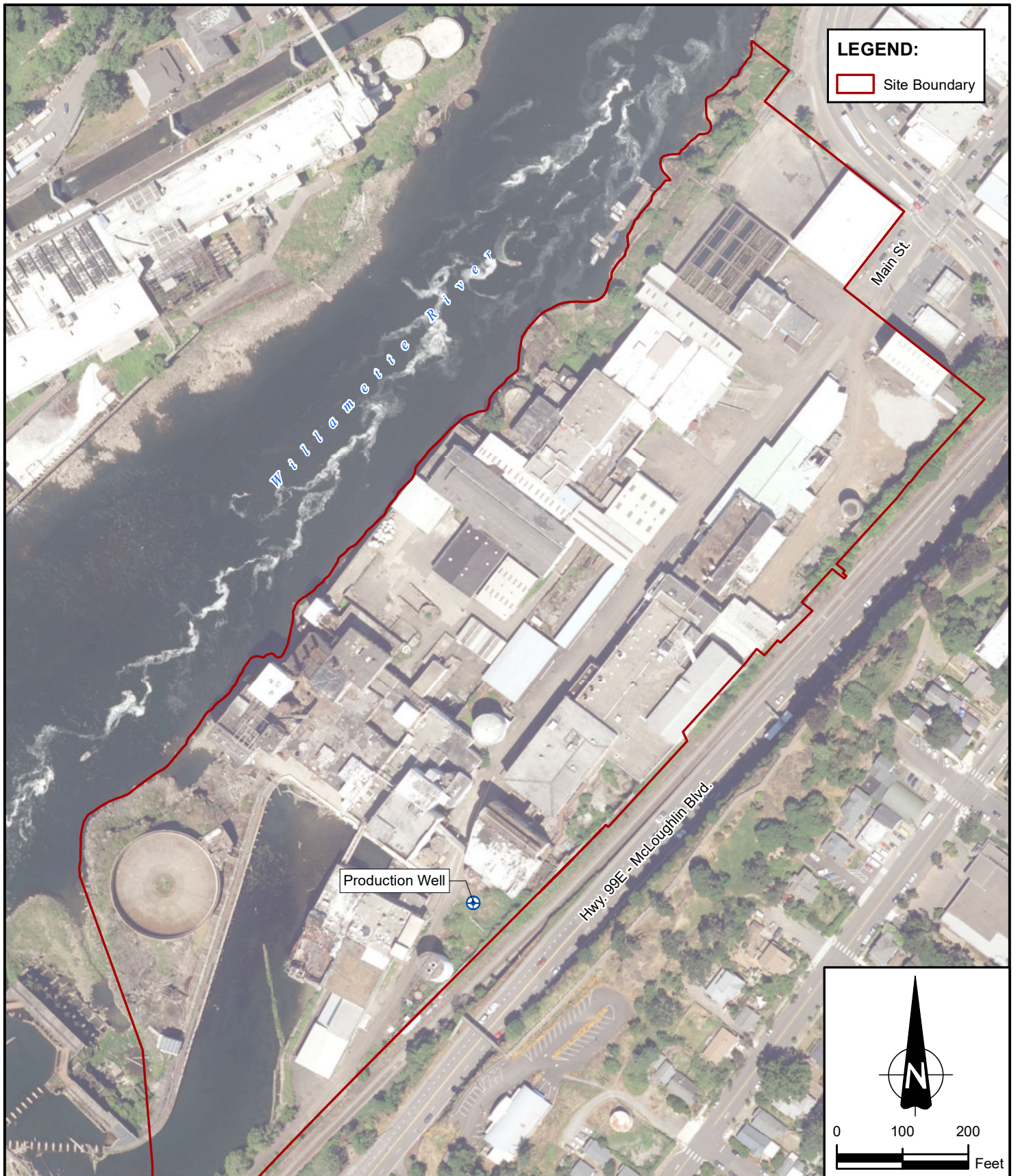
John Kuiper, RG
Geologist, Project Manager

DM/JK:al

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Attachments: Figure 1 – Production Well Location
Figure 2 – Conceptual Well Completion Diagram
Well Report for CLAC 04419

ATTACHMENTS



CONFEDERATED TRIBES
OF THE GRAND RONDE

WSP USA
15862 SW 72nd Ave., Suite 150
Portland, OR 97224



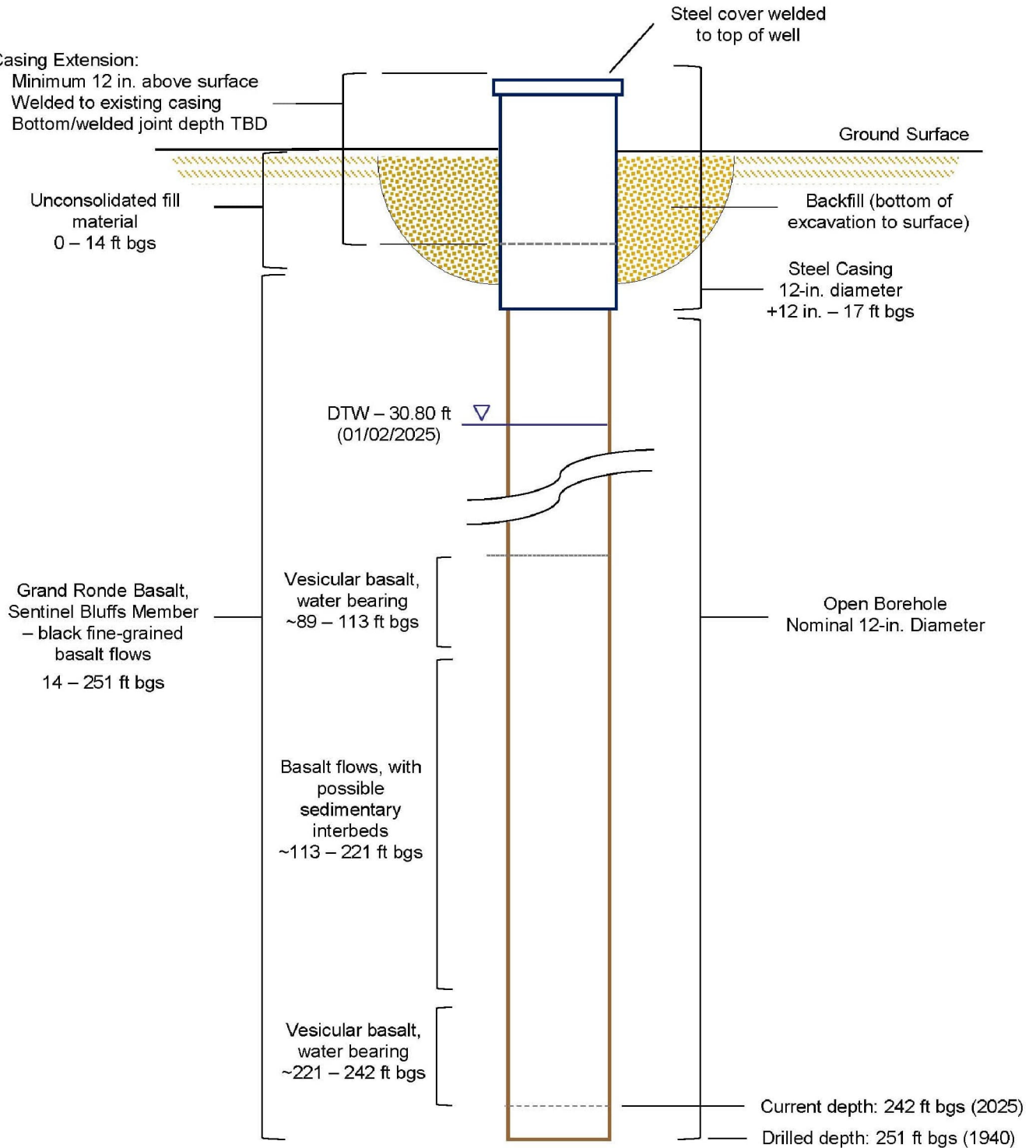
WORK PLAN FOR PRODUCTION WELL REPAIR
FORMER BLUE HERON PAPER MILL
419-427 MAIN STREET, OREGON CITY, OREGON

SITE MAP SHOWING LOCATION
OF ON-SITE PRODUCTION WELL

DATE	APRIL 2025
SCALE	1" = 200 feet
PROJECT NO.	US-EI-G685.2011
FIGURE	1

Casing Extension:

- Minimum 12 in. above surface
- Welded to existing casing
- Bottom/welded joint depth TBD



Notes:

1. Lithologic information interpreted from Well Log for CLAC 4419 completed by R.J. Strasser Drilling Co., 1940.

DTW – depth to water
ft bgs – feet below ground surface
in. – inch/inches
TBD – to be determined

**CONFEDERATED TRIBES
OF THE GRAND RONDE**

WSP USA
15862 SW 72nd Ave., Suite 150
Portland, OR 97224



WORK PLAN FOR PRODUCTION WELL REPAIR
FORMER BLUE HERON PAPER MILL
419-427 MAIN STREET, OREGON CITY, OREGON

**CONCEPTUAL WELL COMPLETION
DIAGRAM FOR PRODUCTION WELL,
CLAC 4419 (WELL ID 155955)**

DATE	MAY 2025
SCALE	NOT TO SCALE
PROJECT NO.	US-EI-G685.2011
FIGURE	2

STATE ENGINEER
Salem, Oregon

CLAC

04419

Well Record

STATE WELL NO. 2/2-31F(1)
COUNTY Clackamas
APPLICATION NO. GR-707

OWNER: Publisher's Paper Co.

MAILING
ADDRESS:

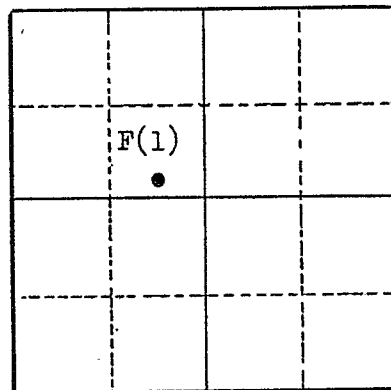
CITY AND

STATE: Oregon City, Oregon

LOCATION OF WELL: Owner's No. 1

SE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 31 T. 2 N. S., R. 2 E. W.M.

Bearing and distance from section or subdivision
corner Approx. 3370 feet West & 2380 feet South
from NE corner of Section 31, T.2 S.
R. 2 E.



Section 31

Altitude at well 120' Interpolated

TYPE OF WELL: Drilled Date Constructed 1940

Depth drilled 250' Depth cased 17

CASING RECORD:

12-inch

FINISH:

AQUIFERS:

WATER LEVEL:

49 feet

PUMPING EQUIPMENT: Type Deming turgine H.P. 20
Capacity 220 G.P.M.

WELL TESTS:

Drawdown 41 ft. after hours 230 G.P.M.

Drawdown ft. after hours G.P.M.

USE OF WATER Manufacturing Temp. °F. 19

SOURCE OF INFORMATION GR-707

DRILLER or DIGGER R.J. Strasser Drilling Co., Portland, Oregon

ADDITIONAL DATA:

Log X Water Level Measurements Chemical Analysis Aquifer Test

REMARKS:

State Well No. 2/2-31F(1)
County Clackamas
Application No. GR-707

Owner: Publisher's Paper Company Owner's No. 1
Driller: R. J. Strasser Date Drilled 1940

[illegible]