

# Application for Permanent Water Right Transfer

## Part 1 of 5 – Minimum Requirements Checklist



Oregon Water Resources Department  
725 Summer Street NE, Suite A  
Salem, Oregon 97301-1266  
(503) 986-0900  
www.oregon.gov/OWRD

**This transfer application will be returned if Parts 1 through 5 and all required attachments are not completed and included.**

For questions, please call (503) 986-0900, and ask for Transfer Section.

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Check all items included with this application. (N/A = Not Applicable)

- ☒ Part 1 – Completed Minimum Requirements Checklist.
- ☒ Part 2 – Completed Transfer Application Map Checklist.
- ☒ Part 3 – Application Fee, payable by check to the Oregon Water Resources Department, and completed Fee Worksheet, page 3. Try the new online fee calculator at:  
[http://apps.wrd.state.or.us/apps/misc/wrd\\_fee\\_calculator](http://apps.wrd.state.or.us/apps/misc/wrd_fee_calculator).
- ☒ Part 4 – Completed Applicant Information and Signature.
- ☒ Part 5 – Information about Water Rights to be Transferred: **How many water rights are to be transferred? 2 List them here: Certificates 95068 and 95069**  
Please include a separate Part 5 for each water right. (See instructions on page 6)  
**NOTE: A separate transfer application is required for each water right unless the criteria in OAR 690-380-3220 are met.**

### Attachments:

- ☒ Completed Transfer Application Map.
- ☒ Completed Evidence of Use Affidavit and supporting documentation.
- ☐ ☒ N/A Affidavit(s) of Consent from Landowner(s) (if the applicant does not own the land the water right is on.)
- ☒ ☐ N/A Supplemental Form D – For water rights served by or issued in the name of an irrigation district. Complete when the transfer applicant is not the irrigation district.
- ☒ ☐ N/A Oregon Water Resources Department's Land Use Information Form with approval and signature from each local land use authority in which water is to be diverted, conveyed, and/or used. Not required if water is to be diverted, conveyed, and/or used only on federal lands or if **all** of the following apply: a) a change in place of use only, b) no structural changes, c) the use of water is for irrigation only, and d) the use is located within an irrigation district or an exclusive farm use zone.
- ☒ ☐ N/A Water Well Report/Well Log for changes in point(s) of appropriation (well(s)) or additional point(s) of appropriation.
- ☐ ☒ N/A Geologist Report for a change from a surface water point of diversion to a ground water point of appropriation (well), if the proposed well is more than 500' from the surface water source and more than 1000' upstream or downstream from the point of diversion. See OAR 690-380-2130 for requirements and applicability.

### (For Staff Use Only)

#### WE ARE RETURNING YOUR APPLICATION FOR THE FOLLOWING REASON(S):

- |  |  |
|--|--|
| <input type="checkbox"/> Application fee not enclosed/insufficient | <input type="checkbox"/> Map not included or incomplete                  |
| <input type="checkbox"/> Land Use Form not enclosed or incomplete  | <input type="checkbox"/> Evidence of Use Form not enclosed or incomplete |
| <input type="checkbox"/> Additional signature(s) required          | <input type="checkbox"/> Part _____ is incomplete                        |

Other/Explanation \_\_\_\_\_

Staff: \_\_\_\_\_ 503- \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_



## Part 2 of 5 – Transfer Application Map

Your transfer application will be returned if any of the map requirements listed below are not met.

Please be sure that the transfer application map you submit includes all the required items and matches the existing water right map. Check all boxes that apply.

- ☒ ☐ N/A Certified Water Right Examiner (CWRE) Stamp and Original Signature. For a list of CWREs, see [http://apps.wrd.state.or.us/apps/wr/cwre\\_license\\_view/](http://apps.wrd.state.or.us/apps/wr/cwre_license_view/). CWRE stamp and signature are not required for substitutions.
- ☐ ☒ N/A If **more than three** water rights are involved, separate maps are needed for each water right.
- ☒ Permanent quality printed with dark ink on good quality paper.
- ☒ The size of the map can be 8½ x 11 inches, 8½ x 14 inches, 11 x 17 inches, or up to 30 x 30 inches. For 30 x 30 inch maps, one extra copy is required.
- ☒ A north arrow, a legend, and scale.
- ☒ The scale of the map must be: 1 inch = 400 feet, 1 inch = 1,320 feet, the scale of the Final Proof/Claim of Beneficial Use Map (the map used when the permit was certificated), the scale of the county assessor map if the scale is not smaller than 1 inch = 1,320 feet, or a scale that has been pre-approved by the Department.
- ☒ Township, Range, Section, ¼ ¼, DLC, Government Lot, and other recognized public land survey lines.
- ☒ Tax lot boundaries (property lines) are required. Tax lot numbers are recommended.
- ☒ Major physical features including rivers and creeks showing direction of flow, lakes and reservoirs, roads, and railroads.
- ☒ Major water delivery system features from the point(s) of diversion/appropriation such as main pipelines, canals, and ditches.
- ☒ Existing place of use that includes separate hachuring for each water right, priority date, and use including number of acres in each quarter-quarter section, government lot, or in each quarter-quarter section as projected within government lots, donation land claims, or other recognized public land survey subdivisions. If less than the entirety of the water right is being changed, a separate hachuring is needed for lands left unchanged.
- ☐ ☒ N/A Proposed place of use that includes separate hachuring for each water right, priority date, and use including number of acres in each quarter-quarter section, government lot, or in each quarter-quarter section as projected within government lots, donation land claims, or other recognized public land survey subdivisions.
- ☒ Existing point(s) of diversion or well(s) with distance and bearing or coordinates from a recognized survey corner. This information can be found in your water right certificate or permit.
- ☒ ☐ N/A If you are proposing a change in point(s) of diversion or well(s), show the proposed location and label it clearly with distance and bearing or coordinates. If GPS coordinates are used, latitude-longitude coordinates may be expressed as either degrees-minutes-seconds with at least one digit after the decimal (example – 42°32'15.5") or degrees-decimal with five or more digits after the decimal (example – 42.53764°).

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## FEE WORKSHEET for PERMANENT TRANSFER (except Substitution)

1. For irrigation calculate cfs for each water right involved as follows:
  - a. Divide total authorized cfs by total acres in the water right (*for C12345, 1.25 cfs ÷ 100 ac*); then multiply by the number of acres to be transferred to get the transfer cfs (*x 45 ac = 0.56 cfs*).
  - b. If the water right certificate does not list total cfs, but identifies the allowable use as 1/40 or 1/80 of a cfs per acre; multiply number of acres proposed for change by either 0.025 (1/40) or 0.0125 (1/80). (*For C87654, 45.0 ac x 0.0125 cfs/ac = 0.56 cfs*)
2. Add cfs for the portions of water rights on all the land included in the transfer; however **do not count cfs for supplemental rights on acreage for which you have already calculated the cfs fee for the primary right on the same land**. The fee should be assessed only once for each "on the ground" acre included in the transfer. (*In this example, blank 5a would be only 0.56 cfs, since both rights serve the same 45.0 acres. Blank 5b would be 0 and Line 5 would then also become 0*).

1	Base Fee (includes change to one well)	1	\$990.00
	Number of wells included in substitution _____ (2a) Subtract 1 from the number in 2a above: _____ (2b) <i>If only one well this will be 0</i>		
2	Multiply line 2b by \$480 and enter » » » » » » » » » » » » » » »	2	N/A
3	Add entries on lines 1 through 2 above » » » » » » <b>Fee for Substitution:</b>	3	N/A

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## Part 4 of 5 – Applicant Information and Signature

### Applicant Information

APPLICANT/BUSINESS NAME <b>Eagle Crest Master Association</b>		PHONE NO. <b>541-548-9300</b>	ADDITIONAL CONTACT NO.
ADDRESS <b>ATTN: ECMA President, PO Box 1215</b>		FAX NO.	
CITY <b>Redmond</b>	STATE <b>OR</b>	ZIP <b>97756</b>	E-MAIL <b>curt.heimuller@eagle-crest.com</b>
<b>BY PROVIDING AN E-MAIL ADDRESS, CONSENT IS GIVEN TO RECEIVE ALL CORRESPONDENCE FROM THE DEPARTMENT ELECTRONICALLY. COPIES OF THE FINAL ORDER DOCUMENTS WILL ALSO BE MAILED.</b>			

**Agent Information** – The agent is authorized to represent the applicant in all matters relating to this application.

AGENT/BUSINESS NAME <b>Niall Boggs, PE, CWRE / Parametrix</b>		PHONE NO. <b>541-550-7494</b>	ADDITIONAL CONTACT NO. <b>541-948-5362 (mobile)</b>
ADDRESS <b>150 NW Pacific Park Lane, Suite 110</b>		FAX NO.	
CITY <b>Bend</b>	STATE <b>OR</b>	ZIP <b>97701</b>	E-MAIL <b>nboggs@parametrix.com</b>
<b>BY PROVIDING AN E-MAIL ADDRESS, CONSENT IS GIVEN TO RECEIVE ALL CORRESPONDENCE FROM THE DEPARTMENT ELECTRONICALLY. COPIES OF THE FINAL ORDER DOCUMENTS WILL ALSO BE MAILED.</b>			

Explain in your own words what you propose to accomplish with this transfer application, and why:  
We are adding a new point of appropriation to the two existing Quasi-Municipal water rights (Certificate 95068 and 95069) that supply the Eagle Crest Master Association water system with water. This transfer will allow the replacement of Well 2A (which has a broken casing and increasing nitrate levels) with newly constructed Well 2C. Well 2A will be abandoned and sealed per OHA rules.

If you need additional space, continue on a separate piece of paper and attach to the application as "Attachment 1".

### Check One Box

- ☒ By signing this application, I understand that, upon receipt of the draft preliminary determination and prior to Department approval of the transfer, I will be required to provide landownership information and evidence that I am authorized to pursue the transfer as identified in OAR 690-380-4010(5); **OR**
- ☐ I affirm the applicant is a municipality as defined in ORS 540.510(3)(b) and that the right is in the name of the municipality or a predecessor; **OR**
- ☐ I affirm the applicant is an entity with the authority to condemn property and is acquiring by condemnation the property to which the water right proposed for transfer is appurtenant and have supporting documentation.

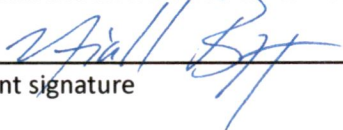
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By my signature below, I confirm that I understand:

- Prior to Department approval of the transfer application, I may be required to submit payment to the Department for publication of a notice in a newspaper with general circulation in the area where the water right is located, once per week for two consecutive weeks. If more than one qualifying newspaper is available, I suggest publishing the notice in the following newspaper: Bend Bulletin.
- Amendments to the application may only be made in response to the Department's Draft Preliminary Determination (DPD). The applicant will have a period of at least 30 days to amend the application to address any issues identified by the Department in the DPD, or to withdraw the application. Note that amendments may be subject to additional fees, pursuant to ORS 536.050.
- Failure to complete an approved change in place of use and/or change in character of use, will result in loss of the water right (OAR 690-380-6010).
- Refunds may only be granted upon request and, as set forth in ORS 536.050(4)(a), if the Director determines that a refund of all or part of a fee is appropriate in the interests of fairness to the public or necessary to correct an error of the Department.

I (we) affirm that the information contained in this application is true and accurate.

  
Applicant signature

**Authorized Agent**

Print Name (and Title if applicable)

**06/05/2025**

Date

Applicant signature

Print Name (and Title if applicable)

Date

Is the applicant the sole owner of the land on which the water right, or portion thereof, proposed for transfer is located? ☒ Yes ☐ No\*

*\*If NO, include signatures of all deeded landowners (and mailing and/or e-mail addresses if different than the applicant's) or attach affidavits of consent (and mailing and/or e-mail addresses) from all landowners or individuals/entities to which the water right(s) were conveyed.*

Check the following boxes that apply:

- ☒ The applicant is responsible for completion of change(s). Notices and correspondence should continue to be sent to the applicant.
- ☐ The receiving landowner will be responsible for completing the proposed change(s) after the final order is issued. Copies of notices and correspondence should be sent to this landowner.
- ☐ Both the receiving landowner and applicant will be responsible for completion of change(s). Copies of notices and correspondence should be sent to this landowner and the applicant.

At this time, are the lands in this transfer application in the process of being sold? ☐ Yes ☒ No

If YES, and you know who the new landowner will be, please complete the receiving landowner information table below. If you do not know who the new landowner will be, then a request for assignment will have to be filed for at a later date.

If a property sells, the certificated water right(s) located on the land belong to the new owner, unless a sale agreement or other document states otherwise. For more information see:

[https://www.oregon.gov/owrd/WRDFormsPDF/Transfer\\_Property\\_Transactions.pdf](https://www.oregon.gov/owrd/WRDFormsPDF/Transfer_Property_Transactions.pdf)

RECEIVING LANDOWNER NAME <b>N/A</b>			PHONE NO. <b>N/A</b>	ADDITIONAL CONTACT NO. <b>N/A</b>
ADDRESS <b>N/A</b>			FAX NO. <b>N/A</b>	
CITY <b>N/A</b>	STATE <b>N/A</b>	ZIP <b>N/A</b>	E-MAIL <b>N/A</b>	
Describe any special ownership circumstances: <b>N/A</b>				
The confirming Certificate shall be issued in the name of: <input type="checkbox"/> Applicant <input type="checkbox"/> Receiving Landowner				

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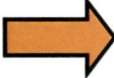


☒ Check here if any of the water rights proposed for transfer are or will be located within or served by an irrigation or other water district. (Tip: Complete and attach Supplemental Form D.)

IRRIGATION DISTRICT NAME <b>Swalley Irrigation District</b>	ADDRESS <b>64672 Cook Ave., Suite #1</b>	
CITY <b>Bend</b>	STATE <b>OR</b>	ZIP <b>97703</b>

☐ Check here if water for any of the rights supplied under a water service agreement or other contract for stored water with a federal agency or other entity.

ENTITY NAME	ADDRESS	
CITY	STATE	ZIP

 To meet State Land Use Consistency Requirements, you must list all county, city, municipal corporation, or tribal governments within whose jurisdiction water will be diverted, conveyed or used.

ENTITY NAME <b>Deschutes County</b>	ADDRESS <b>117 NW Lafayette Avenue</b>	
CITY <b>Bend</b>	STATE <b>OR</b>	ZIP <b>97701</b>

ENTITY NAME	ADDRESS	
CITY	STATE	ZIP

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## INSTRUCTIONS for editing the Application Form

To add additional lines to tables within the forms or to copy and paste additional Part 5 pages, please **save the application form to your computer**. Unlock the document by using one of the following instructions for your Microsoft Word software version:

### Microsoft Word 2003

Unlock the document by one of the following:

- Using the **Tools** menu => click **Unprotect Document**;
- OR**
- Using the **Forms** toolbar => click on the **Protect/Unprotect** icon.

To relock the document to enable the checkboxes to work, you will need to:

- Using the **Tools** menu => click **Protect Document**;
- OR**
- Using the **Forms** toolbar => click on the **Protect/Unprotect** icon.

### Microsoft Word 2007

- Unlock the document by clicking the **Review** tab, then click **Protect Document**, then click **Stop Protect**
- To relock the document, click **Editing Restrictions**, then click **Allow Only This Type of Editing**, select **Filling In Forms** from the drop-down menu, then check **Yes, Start Enforcing Protection**.

### Microsoft Word 2010

- Unlock the document by clicking the **Review** tab; toggle the **Restrict Editing** icon at the upper right, then click **Stop Protect** at the bottom right. Then uncheck the "**Allow only this type of editing** in the document: **Filling in forms**" in the "Editing restrictions" section on the right-hand list of options.
- To relock the document, check the **Editing Restrictions/Allow Only This Type of Editing/Filling In Forms** box from the drop-down menu, then check **Yes, Start Enforcing Protection**. You do not need to assign a password for the editing restrictions.

### Other Alternatives:

- Photocopy pages or tables in Part 5, ~~mark through~~ any non-applicable information, insert/attach photocopied pages to document in the appropriate location, and manually amend page numbers as necessary (e.g. Page ~~5~~ 6 of ~~9~~ 10).
- You may refer to additional attachments that you may include, such as separately produced tables or spreadsheets to convey large numbers of rows of place of use listings, owner/property parcels, etc. You may contact the Department at 503-986-0900 and ask for Transfer Staff if you have questions.

Once the application has been unlocked, you may:

- add additional rows to tables using the Table tools, and
- select and copy the pages of Part 5 and paste as many additional sets of Part 5 pages as needed at the end of the application.

After editing, re-lock the document to enable checkboxes to work.

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## Part 5 of 5 – Water Right Information

Please use a separate Part 5 for each water right being changed. See instructions on page 6, to copy and paste additional Part 5s, or to add additional rows to tables within the form.

CERTIFICATE # **95068**

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### Description of Water Delivery System

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System capacity: \_\_\_\_\_ cubic feet per second (cfs) OR

**1,333** gallons per minute (gpm)

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Describe the current water delivery system or the system that was in place at some time within the last five years. Include information on the pumps, canals, pipelines, and sprinklers used to divert, convey, and apply the water at the authorized place of use. Since 2014, the ECMA water system has been supplied by Wells 2A, 2B, and 4. All the wells pump into the domestic water system consisting of 2" to 10" PVC watermains. Well 4 also has the ability to pump directly into an irrigation lake. In 2024, Well 2C was installed to:

1. Replace Well 2A that had a damaged steel well casing (the vertical steel pipe that maintains the interior structural integrity of the well, with reparation of the well casing not a viable, replacement of the well would allow for a new well to meet long-term water supply to the ECMA water system reducing the potential for Well #2a to have a catastrophic structural failure rendering it useless;
2. Well 2A had concerning levels of Nitrate that were increasing with time and nearing the allowable limit of water quality standard which were evaluated and likely caused by the damaged well casing and nearby water intrusion through the casing damage that could affect Nitrate levels within the well.

As of February 2025, Well 2C has been tested for water quality, well function and is in use developing groundwater into the ECMA water system. Along with full operation of Well 2C, the replaced Well 2A has been eliminated from the water system, had the well pump equipment removed, rendered inoperable and is awaiting formal abandonment by Abbas Well Drilling to finalize the transition from Well 2A to Well 2C.

The formal abandonment of Well 2A will completely fill the well casing (including the damaged casing interval) with sodium bentonite clay, a highly expansive sealant to restrict transmission of water through the well casing to the aquifer used by both Wells 2B and 2C. This abandonment of Well 2A will complete the installation, changeover and replacement of Well 2A by Well 2C.

See attached Well Completion Report for Well 2C by Cascade Geoengineering for additional details on Well 2C.

**Table 1. Location of Authorized and Proposed Point(s) of Diversion (POD) or Appropriation (POA)**

(Note: If the POD/POA name is not specified on the certificate, assign it a name or number here.)

POD/POA Name or Number	Is this POD/POA Authorized on the Certificate or is it Proposed?	If POA, OWRD Well Log ID# (or Well ID Tag # L-___)	Twp	Rng	Sec	¼	¼	Tax Lot, DLC or Gov't Lot	Measured Distances (from a recognized survey corner)
Well 2A	<input checked="" type="checkbox"/> Authorized <input type="checkbox"/> Proposed	DESC 3614	15 S	12 E	23	NE	NE	15122 3A000 200	491 feet south and 2055 feet east from N1/4 corner, section 23

Well 2B	<input checked="" type="checkbox"/> Authorized <input type="checkbox"/> Proposed	DESC 57946	15	S	12	E	23	NE	NE	15122 3A000 200	511 feet south and 2055 feet east from N1/4 corner, section 23
Well 4	<input checked="" type="checkbox"/> Authorized <input type="checkbox"/> Proposed	DESC 59818	15	S	12	E	23	NW	NE	15122 3A006 400	64 feet south and 692 feet east from N1/4 corner, section 23
Well 2C	<input type="checkbox"/> Authorized <input checked="" type="checkbox"/> Proposed	DESC 64749	15	S	12	E	23	NE	NE	15122 3A000 134	481 feet south and 2095 feet east from N1/4 corner, section 23

**Check all type(s) of change(s) proposed below (change "CODES" are provided in parentheses):**

- |  |  |
|--|--|
| <input type="checkbox"/> Place of Use (POU)                            | <input type="checkbox"/> Supplemental Use to Primary Use (S to P)            |
| <input type="checkbox"/> Character of Use (USE)                        | <input type="checkbox"/> Point of Appropriation/Well (POA)                   |
| <input type="checkbox"/> Point of Diversion (POD)                      | <input checked="" type="checkbox"/> Additional Point of Appropriation (APOA) |
| <input type="checkbox"/> Additional Point of Diversion (APOD)          | <input type="checkbox"/> Substitution (SUB)                                  |
| <input type="checkbox"/> Surface Water POD to Ground Water POA (SW/GW) | <input type="checkbox"/> Government Action POD (GOV)                         |

**Will all of the proposed changes affect the entire water right?**

- ☐ Yes Complete only the Proposed ("to" or "on" lands) section of Table 2 on the next page. Use the "CODES" listed above to describe the proposed changes.
- ☒ No Complete all of Table 2 to describe the portion of the water right to be changed.

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Please use and attach additional pages of Table 2 as needed.  
See page 6 for instructions.

Do you have questions about how to fill-out the tables?  
Contact the Department at 503-986-0900 and ask for Transfer Staff.

**Table 2. Description of Changes to Water Right Certificate # 95068**

List the change proposed for the acreage in each ¼ ¼. If more than one change is proposed, specify the acreage associated with each change.  
If there is more than one POD/POA involved in the proposed changes, specify the acreage associated with each POD/POA.

AUTHORIZED (the “from” or “off” lands) The listing that appears on the certificate BEFORE PROPOSED CHANGES List only that part or portion of the water right that will be changed.													Proposed Changes (see “CODES” from previous page)	PROPOSED (the “to” or “on” lands) The listing as it would appear AFTER PROPOSED CHANGES are made.												
Twp	Rng	Sec	¼ ¼	Tax Lot	Gvt Lot or DLC	Acres	Type of USE listed on Certificate	POD(s) or POA(s) (name or number from Table 1)	Priority Date	Twp	Rng	Sec		¼ ¼	Tax Lot	Gvt Lot or DLC	Acres	New Type of USE	POD(s)/ POA(s) to be used (from Table 1)	Priority Date						
EXAMPLE																										
2	S	9	E	15	NE	NW	100		15.0	Irrigation	POD #1 POD #2	1901	POU/POD	2	S	9	E	1	NW	NW	500	1	10.0		POD #5	1901
														2	S	9	E	2	SW	NW	500		5.0		POD #6	1901
														15	S	12	E	23	NE	NE	134		N/A		Well 2C	6/20/1988
TOTAL ACRES:														TOTAL ACRES:							N/A					

Additional remarks: Adding a new POA, Well 2C. This will be replacing Well 2A.



**For Place of Use or Character of Use Changes**

Are there other water right certificates, water use permits or ground water registrations associated with the "from" or the "to" lands? ☒ Yes ☐ No

If YES, list the certificate, water use permit, or ground water registration numbers: **Certificates 95069, 52185, & 93932 as well as Permit G-11762 (T-13950).**

Pursuant to ORS 540.510, any "layered" water use such as an irrigation right that is supplemental to a primary right proposed for transfer must be included in the transfer or be cancelled. Any change to a ground water registration must be filed separately in a ground water registration modification application.

**Substitution** (ground water supplemental irrigation will be substituted for surface water primary irrigation)

Ground water supplemental Permit or Certificate # **N/A**;

Surface water primary Certificate # **N/A**.

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**For a change from Supplemental Irrigation Use to Primary Irrigation Use**

Identify the primary certificate to be cancelled. Certificate # **N/A**

**For a change in point(s) of appropriation (well(s)) or additional point(s) of appropriation:**

- ☒ Well log(s) are attached for each authorized and proposed well(s) that are clearly labeled and associated with the corresponding well(s) in Table 1 above and on the accompanying application map.

**Tip:** You may search for well logs on the Department's web page at:

[http://apps.wrd.state.or.us/apps/gw/well\\_log/Default.aspx](http://apps.wrd.state.or.us/apps/gw/well_log/Default.aspx)

**AND/OR**

- ☐ Describe the construction of the authorized and proposed well(s) in Table 3 for any wells that do not have a well log. For *proposed wells not yet constructed or built*, provide "a best estimate" for each requested information element in the table. The Department recommends you consult a licensed well driller, geologist, or certified water right examiner to assist with assembling the information necessary to complete Table 3.

**Table 3. Construction of Point(s) of Appropriation**

Any well(s) in this listing must be clearly tied to corresponding well(s) described in Table 1 and shown on the accompanying application map. Failure to provide the information will delay the processing of your transfer application until it is received. The information is necessary for the department to assess whether the proposed well(s) will access the same source aquifer as the authorized point(s) of appropriation (POA). The Department is prohibited by law from approving POA changes that do not access the same source aquifer.

Proposed or Authorized POA Name or Number	Is well already built? (Yes or No)	If an existing well: OWRD Well ID Tag No. L-___	Total well depth	Casing Diameter	Casing Intervals (feet)	Seal depth(s) (intervals)	Perforated or screened intervals (in feet)	Static water level of completed well (in feet)	Source aquifer (sand, gravel, basalt, etc.)	Well-specific rate (cfs or gpm). If less than full rate of water right
Well 2A	Yes	N/A	330'	12-3/4" 10"	0'-25' 0'-330'	Cement 0'-25'	250'-330'	157'	Clay, Gravel, Congl	180 gpm
Well 2B	Yes	89926	336'	12"	+2'-334'	Cement Slurry 0'-48'	256'-336'	246'	Black sandstone & gravels, brown	600 gpm



									sandstone conglomerate	
Well 4	Yes	112239	518'	12" 10" 8"	2'-31' 0'-455' 446'-518'	Cement 0'-31'	458'-518'	245'	Conglomerate sand brown, Sandstone conglomerate brown, Basalt vesicular broken, Multi colored basalts conglomerate	550 gpm to lake;  430 gpm to domestic system
Well 2C	Yes	152269	377'	12"	1'-332' & 372'-377'	Bentonite 0'-186' & Cement 186'-246'	332'-372'	271'	Gravel & Sandstone	183 gpm

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## Part 5 of 5 – Water Right Information

Please use a separate Part 5 for each water right being changed. See instructions on page 6, to copy and paste additional Part 5s, or to add additional rows to tables within the form.

CERTIFICATE # 95069

### Description of Water Delivery System

System capacity: \_\_\_\_\_ cubic feet per second (cfs) OR

1,333 gallons per minute (gpm)

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Describe the current water delivery system or the system that was in place at some time within the last five years. Include information on the pumps, canals, pipelines, and sprinklers used to divert, convey, and apply the water at the authorized place of use. Since 2014, the ECMA water system has been supplied by Wells 2A, 2B, and 4. All the wells pump into the domestic water system consisting of 2" to 10" PVC watermains. Well 4 also has the ability to pump directly into an irrigation lake. In 2024, Well 2C was installed to:

1. Replace Well 2A that had a damaged steel well casing (the vertical steel pipe that maintains the interior structural integrity of the well, with reparation of the well casing not a viable, replacement of the well would allow for a new well to meet long-term water supply to the ECMA water system reducing the potential for Well #2a to have a catastrophic structural failure rendering it useless;
2. Well 2A had concerning levels of Nitrate that were increasing with time and nearing the allowable limit of water quality standard which were evaluated and likely caused by the damaged well casing and nearby water intrusion through the casing damage that could affect Nitrate levels within the well.

As of February 2025, Well 2C has been tested for water quality, well function and is in use developing groundwater into the ECMA water system. Along with full operation of Well 2C, the replaced Well 2A has been eliminated from the water system, had the well pump equipment removed, rendered inoperable and is awaiting formal abandonment by Abbas Well Drilling to finalize the transition from Well 2A to Well 2C.

The formal abandonment of Well 2A will completely fill the well casing (including the damaged casing interval) with sodium bentonite clay, a highly expansive sealant to restrict transmission of water through the well casing to the aquifer used by both Wells 2B and 2C. This abandonment of Well 2A will complete the installation, changeover and replacement of Well 2A by Well 2C.

See attached Well Completion Report for Well 2C by Cascade Geoengineering for additional details on Well 2C.

**Table 1. Location of Authorized and Proposed Point(s) of Diversion (POD) or Appropriation (POA)**

(Note: If the POD/POA name is not specified on the certificate, assign it a name or number here.)

POD/POA Name or Number	Is this POD/POA Authorized on the Certificate or is it Proposed?	If POA, OWRD Well Log ID# (or Well ID Tag # L-___)	Twp	Rng	Sec	¼	¼	Tax Lot, DLC or Gov't Lot	Measured Distances (from a recognized survey corner)
Well 2A	<input checked="" type="checkbox"/> Authorized <input type="checkbox"/> Proposed	DESC 3614	15 S	12 E	23	NE	NE	15122 3A000 200	491 feet south and 2055 feet east from N1/4 corner, section 23



Well 2B	<input checked="" type="checkbox"/> Authorized <input type="checkbox"/> Proposed	DESC 57946	15	S	12	E	23	NE	NE	15122 3A000 200	511 feet south and 2055 feet east from N1/4 corner, section 23
Well 4	<input checked="" type="checkbox"/> Authorized <input type="checkbox"/> Proposed	DESC 59818	15	S	12	E	23	NW	NE	15122 3A006 400	64 feet south and 692 feet east from N1/4 corner, section 23
Well 2C	<input type="checkbox"/> Authorized <input checked="" type="checkbox"/> Proposed	DESC 64749	15	S	12	E	23	NE	NE	15122 3A000 134	481 feet south and 2095 feet east from N1/4 corner, section 23

Check all type(s) of change(s) proposed below (change "CODES" are provided in parentheses):

- |  |  |
|--|--|
| <input type="checkbox"/> Place of Use (POU)                            | <input type="checkbox"/> Supplemental Use to Primary Use (S to P)            |
| <input type="checkbox"/> Character of Use (USE)                        | <input type="checkbox"/> Point of Appropriation/Well (POA)                   |
| <input type="checkbox"/> Point of Diversion (POD)                      | <input checked="" type="checkbox"/> Additional Point of Appropriation (APOA) |
| <input type="checkbox"/> Additional Point of Diversion (APOD)          | <input type="checkbox"/> Substitution (SUB)                                  |
| <input type="checkbox"/> Surface Water POD to Ground Water POA (SW/GW) | <input type="checkbox"/> Government Action POD (GOV)                         |

Will all of the proposed changes affect the entire water right?

- ☐ Yes Complete only the Proposed ("to" or "on" lands) section of Table 2 on the next page. Use the "CODES" listed above to describe the proposed changes.
- ☒ No Complete all of Table 2 to describe the portion of the water right to be changed.

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Please use and attach additional pages of Table 2 as needed.  
See page 6 for instructions.

Do you have questions about how to fill-out the tables?  
Contact the Department at 503-986-0900 and ask for Transfer Staff.

**Table 2. Description of Changes to Water Right Certificate # 95069**

List the change proposed for the acreage in each ¼ ¼. If more than one change is proposed, specify the acreage associated with each change.  
If there is more than one POD/POA involved in the proposed changes, specify the acreage associated with each POD/POA.

AUTHORIZED (the "from" or "off" lands) The listing that appears on the certificate BEFORE PROPOSED CHANGES List only that part or portion of the water right that will be changed.											Proposed Changes (see "CODES" from previous page)	PROPOSED (the "to" or "on" lands) The listing as it would appear AFTER PROPOSED CHANGES are made.														
Twp	Rng	Sec	¼ ¼	Tax Lot	Gvt Lot or DLC	Acres	Type of USE listed on Certificate	POD(s) or POA(s) (name or number from Table 1)	Priority Date	Twp		Rng	Sec	¼ ¼	Tax Lot	Gvt Lot or DLC	Acres	New Type of USE	POD(s)/ POA(s) to be used (from Table 1)	Priority Date						
<b>EXAMPLE</b>																										
2	S	9	E	15	NE	NW	100		15.0	Irrigation	POD #1 POD #2	1901	POU/POD	2	S	9	E	1	NW	NW	500	1	10.0		POD #5	1901
														2	S	9	E	2	SW	NW	500		5.0		POD #6	1901
														15	S	12	E	23	NE	NE	134		N/A		Well 2C	5/20/1985
TOTAL ACRES:														TOTAL ACRES:							N/A					

Additional remarks: Adding a new POA, Well 2C. This will be replacing Well 2A.



**For Place of Use or Character of Use Changes**

Are there other water right certificates, water use permits or ground water registrations associated with the "from" or the "to" lands? ☒ Yes ☐ No

If YES, list the certificate, water use permit, or ground water registration numbers: **Certificates 95068, 52185, & 93932 as well as Permit G-11762 (T-13950).**



Pursuant to ORS 540.510, any "layered" water use such as an irrigation right that is supplemental to a primary right proposed for transfer must be included in the transfer or be cancelled. Any change to a ground water registration must be filed separately in a ground water registration modification application.

**For Substitution** (ground water supplemental irrigation will be substituted for surface water primary irrigation)

Ground water supplemental Permit or Certificate # \_\_\_\_\_;

Surface water primary Certificate # \_\_\_\_\_.

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**For a change from Supplemental Irrigation Use to Primary Irrigation Use**

Identify the primary certificate to be cancelled. Certificate # \_\_\_\_\_

**For a change in point(s) of appropriation (well(s)) or additional point(s) of appropriation:**

- ☒ Well log(s) are attached for each authorized and proposed well(s) that are clearly labeled and associated with the corresponding well(s) in Table 1 above and on the accompanying application map.

**Tip:** You may search for well logs on the Department's web page at:

[http://apps.wrd.state.or.us/apps/gw/well\\_log/Default.aspx](http://apps.wrd.state.or.us/apps/gw/well_log/Default.aspx)

**AND/OR**

- ☐ Describe the construction of the authorized and proposed well(s) in Table 3 for any wells that do not have a well log. For *proposed wells not yet constructed or built*, provide "a best estimate" for each requested information element in the table. The Department recommends you consult a licensed well driller, geologist, or certified water right examiner to assist with assembling the information necessary to complete Table 3.

**Table 3. Construction of Point(s) of Appropriation**

Any well(s) in this listing must be clearly tied to corresponding well(s) described in Table 1 and shown on the accompanying application map. Failure to provide the information will delay the processing of your transfer application until it is received. The information is necessary for the department to assess whether the proposed well(s) will access the same source aquifer as the authorized point(s) of appropriation (POA). The Department is prohibited by law from approving POA changes that do not access the same source aquifer.

Proposed or Authorized POA Name or Number	Is well already built? (Yes or No)	If an existing well: OWRD Well ID Tag No. L-____	Total well depth	Casing Diameter	Casing Intervals (feet)	Seal depth(s) (intervals)	Perforated or screened intervals (in feet)	Static water level of completed well (in feet)	Source aquifer (sand, gravel, basalt, etc.)	Well-specific rate (cfs or gpm). If less than full rate of water right
Well 2A	Yes	N/A	330'	12-3/4" 10"	0'-25' 0'-330'	Cement 0'-25'	250'-330'	157'	Clay, Gravel, Congl	180 gpm
Well 2B	Yes	89926	336'	12"	+2'-334'	Cement Slurry 0'-48'	256'-336'	246'	Black sandstone & gravels, brown sandstone conglomerate	600 gpm

Well 4	Yes	112239	518'	12" 10" 8"	2'-31' 0'-455' 446'-518'	Cement 0'-31'	458'-518'	245'	Conglomerat e sand brown, Sandstone conglomerat e brown, Basalt vesicular broken, Multi colored basalts conglomerat e	550 gpm to lake;  430 gpm to domestic system
Well 2C	Yes	152269	377'	12"	1'-332' & 372'-377'	Bentonite 0'-186' & Cement 186'-246'	332'-372'	271'	Gravel & Sandstone	183 gpm

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Parametrix No. 297-7458-004

Oregon Water Resources Department  
725 Summer Street NE, Suite A  
Salem, OR 97301-0900

Re: Water Right Transfer Application for Certificates 95068 & 95069

To Whom it May Concern:

On behalf of Eagle Crest Master Association (ECMA), we are applying to transfer two water right certificates (95068 and 95069) to add an additional point of appropriation to the existing certificates. Note that both certificates currently have the same points of appropriation and place of use. The reason for adding Well 2C to the water rights is because existing Well 2A has had the following operational issues:

1. Well 2A had a damaged steel well casing that was not viable to repair. This damaged casing presented a significant structural failure risk.
2. Well 2A had concerning levels of Nitrate that were increasing with time and nearing the allowable limit of water quality standard. This was determined to have been caused by the damaged well casing.

Based on the damaged casing in Well 2A, ECMA decided to construct a replacement well known as Well 2C and abandon Well 2A. Well 2C was constructed in 2024 (Well Log DESC 64749) and has been tested for water quality. Pumping equipment has been removed from Well 2A, and Well 2A is planned for formal abandonment later this year by filling it with sodium bentonite clay, which is a highly expansive sealant to restrict transmission of water through the casing to the aquifer. Well 2C is located approximately 40 feet east and 10 feet north of Well 2A.

No other changes other than the additional Point of Appropriation are being requested with this application. Please call with any questions or comments.

Sincerely,

Parametrix



Niall Boggs, PE, CWRE

Senior Engineer

cc: Project File

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The original and first copy of this report are to be filed with the

# WATER WELL REPORT

WATER RESOURCES DEPARTMENT  
SALEM, OREGON 97310  
within 30 days from the date of well completion.

STATE OF OREGON  
(Please type or print)

State Well No. 15S/12E-2300

State Permit No. G-9103

AUG 21 1979 (Do not write above this line)

well # 2

## (1) OWNER: WATER RESOURCES DEPT

Name NEIL CHASE SALEM, OREGON  
Address 1004 Cline Falls Rd. Star Rt.  
Redmond, Oregon 97756

## (2) TYPE OF WORK (check):

New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐  
If abandonment, describe material and procedure in Item 12.

## (3) TYPE OF WELL:

Rotary ☒ Driven ☐  
Cable ☐ Jetted ☐  
Dug ☐ Bored ☐

## (4) PROPOSED USE (check):

Domestic ☐ Industrial ☐ Municipal ☐  
Irrigation ☒ Test Well ☐ Other ☐

## (5) CASING INSTALLED:

12 3/4" Diam. from 0 ft. to 25 ft. Gage 250  
10" Diam. from 0 ft. to 330 ft. Gage 188  
" Diam. from ft. to ft. Gage

## (6) PERFORATIONS:

Perforated? ☒ Yes ☐ No

Type of perforator used Factory & torch  
Size of perforations 3 X 1/8 in. by 6 X 1/8 in.  
480 perforations from 250 ft. to 330 ft.  
perforations from ft. to ft.  
perforations from ft. to ft.

## (7) SCREENS:

Well screen installed? ☐ Yes ☒ No

Manufacturer's Name  
Type Model No.  
Diam. Slot size Set from ft. to ft.  
Diam. Slot size Set from ft. to ft.

## (8) WELL TESTS:

Drawdown is amount water level is lowered below static level

Was a pump test made? ☐ Yes ☐ No If yes, by whom?

gal./min. with ft. drawdown after hrs.  
" " " " " " " " " " " "

Ballor test 200 gal./min. with 0 ft. drawdown after 4 hrs.

lan flow g.p.m.

1 erature of water 53 Depth artesian flow encountered ft.

## (9) CONSTRUCTION:

Well seal—Material used Portland Cement  
Well sealed from land surface to 25 ft.  
Diameter of well bore to bottom of seal 16 in.  
Diameter of well bore below seal 15 in.  
Number of sacks of cement used in well seal 21 sacks  
How was cement grout placed?

Was a drive shoe used? ☐ Yes ☒ No Plugs Size: location ft

Did any strata contain unusable water? ☐ Yes ☒ No

Type of water depth of strata

Method of sealing strata off

Was well gravel packed? ☐ Yes ☒ No Size of gravel:

Gravel placed from ft. to ft.

## (10) LOCATION OF WELL:

County Deschutes Driller's well number  
NE 1/4 NE 1/4 Section 23 T. 15S R. 12E W.M.  
Bearing and distance from section or subdivision corner

## (11) WATER LEVEL: Completed well.

Depth at which water was first found 307 ft.  
Static level 157 ft. below land surface. Date 8-20-79  
Artesian pressure lbs. per square inch. Date

## (12) WELL LOG:

Diameter of well below casing 15

Depth drilled 330 ft. Depth of completed well 330 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
Boulders/cemented gravel	0	19	
Congl. hard gray lava	19	37	
Hard brwn lava	37	51	
Brwn lava fractured	51	58	
Red cinder w/seams of red lava	58	69	
Lava brwn fractured	69	89	
Firm yellow sandstone	89	97	
Hard blk lava	97	119	
Sandstone gray hard (graywackie)	119	123	
Hard blk lava	123	156	
Sandstone soft yellow	156	157	
Hard blk lava	157	184	
Firm brwn lava	184	212	
Clay, gravel, congl W/B	212	307	157
Brwn sandstone (firm)	307	330	

Work started 7-25-1979 Completed 8-20-1979

Date well drilling machine moved off of well 8-20-1979

## Drilling Machine Operator's Certification:

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.

[Signed] *John McCoy* Date 8-20-1979  
(Drilling Machine Operator)

Drilling Machine Operator's License No. 1052

## Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Name LEWIS & CLARK DRILLING CO., INC.  
(Person, firm or corporation) (Type or print)

Address P. O. BOX 583 Redmond, Or. 97756

[Signed] *Bob McCoy*  
(Water Well Contractor)

Contractor's License No. 594 Date Aug. 20, 1979



(START CARD) # 190432

\* Amended \* 10/27/04

City **Redmond** State **OR** Zip **97756**

OWRD



STATE OF OREGON  
**WATER SUPPLY WELL REPORT**  
(as required by ORS 537.765)

**DESC 57946**

WELL ID # L **89926**

(START CARD) # **190432**

Instructions for completing this report are on the last page of this form

**(1) OWNER:**

Well Number: **#2B**

Name **Eagle Crest Resort Master Assoc. (EMCA)**

Address **7555 S. Falcon Crest Dr.**

City **Redmond**

State **OR** Zip **97756**

**(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 **334** ft.  
Explosives used ☐ Yes ☒ No Type Amount

HOLE		SEAL		Amount	
Diameter	From To	Material	From To	sacks or pounds	
15in	0 336	Cement Slurry	0 48	78 sacks	

How was seal placed: Method ☐ A ☐ B ☒ C ☐ D ☐ E  
☐ Other

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:	12in	+2	334	.250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Liner:					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s)

**(7) PERFORATIONS/SCREENS:**

☒ Perforations Method **Factory Saw**  
☐ Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
256	336	3/16	1286			<input checked="" type="checkbox"/>	<input type="checkbox"/>

**(8) WELL TESTS: Minimum testing time is 1 hour**

☒ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
300	.5ft	278	8 hr.

Temperature of Water **54** Depth Artesian Flow found

Was a water analysis done? ☒ Yes By whom **Umpqua Research Labs**

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor

Depth of strata:

**(9) LOCATION OF WELL by legal description:**

County **Deschutes** Latitude Longitude  
Township **15S** N or S. Range **12E** E or W. of WM.  
Section **23(A)** NE 1/4 NE 1/4  
Tax lot **200** Lot Block Subdivision **Eagle Cr**  
Street Address of Well (or nearest address) **Falcon Crest Dr., Eagle Crest Resort**

**(10) STATIC WATER LEVEL:**

**246** ft. below land surface. Date **3/16/2007**

Artesian pressure lb. per square inch. Date

**(11) WATER BEARING ZONES:**

Depth at which water was first found **246**

From	To	Estimated Flow Rate	SWL
246	336	800+	246

**(12) WELL LOG:**

Ground elevation

Material	From	To	SWL
Top Soil	0	1	
Cobbles & Sand	1	19	
Gray Basalt	19	37	
Brown Basalt	37	51	
Brown Fractured Basalt	51	58	
Red Cinder Conglomerate	58	69	
Brown Fractured Basalt	69	88	
Yellow Sandstone	88	97	
Black Lava	97	119	
Black Sandstone	119	123	
Black Lava	123	155	
Yellow Sandstone	155	157	
Hard Black Lava	157	184	
Brown Basalt	184	212	
Black Sandstone	212	246	
Black Sandstone & Gravels WB	246	307	246
Brown Sandstone Conglomerate WB	307	336	246

Well completed at 334' after bottom 2' settled

**WESTERN WATER DEVELOPMENT**

P.O. Box 1670

Redmond, OR 97756

Date started **3/5/2007**

Completed **3/16/2007**

**(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 my best knowledge and belief.

Signed \_\_\_\_\_ WWC Number \_\_\_\_\_  
Date \_\_\_\_\_

**(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 **Robert Buckner** WWC Number **1385**  
Date **3/20/2007**

ORIGINAL - WATER RESOURCES DEPARTMENT

FIRST COPY - CONSTRUCTOR

SECOND COPY - CUSTOMER

WATER RESOURCES DEPT  
SALEM, OREGON

Received

JUN 10 2025

OWN



(1) LAND OWNER

Owner Well I.D. \_\_\_\_\_  
First Name \_\_\_\_\_ Last Name \_\_\_\_\_  
Company EMCA  
Address PO BOX 1215  
City REDMOND State OR Zip 97756

(2) TYPE OF WORK

☒ New Well ☐ Deepening ☐ Conversion  
☐ Alteration (complete 2a & 10) ☐ Abandonment (complete 5a)

(2a) PRE-ALTERATION

Dia + From To Gauge Stl Plstc Wld Thrd  
Casing: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐  
Material From To Amt sacks/lbs  
Seal: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

(3) DRILL METHOD

☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger ☐ Cable Mud  
☐ Reverse Rotary ☐ Other \_\_\_\_\_

(4) PROPOSED USE

☐ Domestic ☐ Irrigation ☒ Community  
☐ Industrial/ Commercial ☐ Livestock ☐ Dewatering  
☐ Thermal ☐ Injection ☐ Other \_\_\_\_\_

(5) BORE HOLE CONSTRUCTION

Special Standard ☐ (Attach copy)

Depth of Completed Well 518.00 ft.

BORE HOLE			SEAL			Amt	sacks/ lbs
Dia	From	To	Material	From	To		
17.5	0	31	Cement	0	31	38	S
12	31	349					
11.5	349	455					
10	455	518					

How was seal placed: Method ☐ A ☐ B ☒ C ☐ D ☐ E  
☐ Other \_\_\_\_\_

Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_

Filter pack from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_ Size \_\_\_\_\_

Explosives used: ☐ Yes Type \_\_\_\_\_ Amount \_\_\_\_\_

(5a) ABANDONMENT USING UNHYDRATED BENTONITE

Proposed Amount \_\_\_\_\_ Actual Amount \_\_\_\_\_

(6) CASING/LINER

Casing Liner Dia + From To Gauge Stl Plstc Wld Thrd  
☒ ☐ ☐ 12 ☒ 2 31 .250 ☒ ☐ ☒ ☐  
☒ ☐ ☐ 10 ☐ 0 455 .250 ☒ ☐ ☒ ☐  
☒ ☐ ☐ 8 ☐ 446 518 .250 ☒ ☐ ☒ ☐  
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Shoe ☐ Inside ☐ Outside ☐ Other Location of shoe(s) \_\_\_\_\_

Temp casing ☐ Yes Dia \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

(7) PERFORATIONS/SCREENS

Perforations Method MACHINE

Screens Type \_\_\_\_\_ Material \_\_\_\_\_

Perf/	Casing/ Screen	Dia	From	To	Scr/slot width	Slot length	# of slots	Tele/ pipe size
Perf	Liner	8	458	518	.125	3	816	

(8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
500		518	4

Temperature 55 °F Lab analysis ☐ Yes By \_\_\_\_\_

Water quality concerns? ☒ Yes (describe below) TDS amount

From	To	Description	Amount	Units
211	333	BLACK SAND		

(9) LOCATION OF WELL (legal description)

County DESCHUTES Twp 15.00 S N/S Range 12.00 E E/W WM  
Sec 23 NW 1/4 of the NE 1/4 Tax Lot 6400  
Tax Map Number \_\_\_\_\_ Lot \_\_\_\_\_

Lat \_\_\_\_\_ " or 44.26166667 DMS or DD  
Long \_\_\_\_\_ " or -121.25833333 DMS or DD

☒ Street address of well ☐ Nearest address

7220 FALCON DR WELL#3  
REDMOND,OR

(10) STATIC WATER LEVEL

Existing Well / Pre-Alteration	Date	SWL(psi)	+ SWL(ft)
Completed Well	10/7/2013		245
Flowing Artesian?			
Dry Hole?			

WATER BEARING ZONES

Depth water was first found 300.00

SWL Date	From	To	Est Flow	SWL(psi)	+ SWL(ft)
8/20/2013	300	398	500		245
9/18/2013	398	518	500		245

(11) WELL LOG

Ground Elevation 2984.00

Material	From	To
SAND GRAVELS	0	1.5
LAVA BROKEN	1.5	3
LAVA BROWN	3	12
LAVA GRAY HARD	12	40
CONGLOMERATE RED	40	75
CONGLOMERATE BROWN	75	100
CONGLOMERATE SANDSTONE BROWN	100	150
FRACTURED CONGLOMERATE	150	160
SANDSTONE CONGLOMERATE	160	186
SAND BLACK	186	202
SANDSTONE CONGLOMERATE BROWN	202	211
SAND BLACK	211	250
SAND ROUND ROCK	250	270
CONGLOMERATE SAND BROWN	270	333
SANDSTONE CONGLOMERATE BROWN	333	415
BASALT VESICULAR BROKEN	415	430
MULTI COLORED BASALTS CONGLOMERATE	430	518

Date Started 8/20/2013 Complete 10/7/2013

(unbonded) Water Well Constructor Certification

I certify that the work I performed on the construction, deepening, 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.

License Number 758 Date 10/8/2013

Signed THOMAS R PECK (E-filed)

(bonded) Water Well Constructor Certification

I accept responsibility for the construction, deepening, 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.

License Number 1720 Date 10/8/2013

Signed JACK ABBAS (E-filed)

Contact Info (optional)

14673-

Received

JUN 10 2025



## ORIGINAL LOG #

**4/22/2024**

Contact Info (optional) JACK ABBAS

THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK Form Version:



WELL I.D. LABEL#	L	152269
START CARD #		1073019
ORIGINAL LOG #		

**4/22/2024**

## Water Quality Concerns

Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd

Material	From	To	Amt	sacks/lbs

### **(10) STATIC WATER LEVEL**

BORE HOLE			SEAL			sacks/
Dia	From	To	Material	From	To	lbs
					Calculated	
					Calculated	
					Calculated	
					Calculated	

From	To	Material	Size
313	377	SAND	4/10

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
--------	-------	-----	---	------	----	-------	-----	-------	-----	------

A blank 10x10 grid with a vertical line down the middle. On the left side, there are two columns of circles, each containing 10 circles. On the right side, there are two columns of circles, each containing 10 circles. The grid is intended for a dot plot activity.

Perf/	Casing/	Screen			Scrn/slot	Slot	# of	Tele/
Screen	Liner	Dia	From	To	width	length	slots	pipe size

[illegible]

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
---------------	----------	-----------------------	---------------


From	To	Description	Amount	Units

[illegible]

Material	From	To
----------	------	----

[illegible]

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Name of person(s) who assisted with construction and Trainee License # / Helper #

Assistant Name

Type

#

ZACHARY MIHEVC	TRAINEE WATER	8888935

## Comments/Remarks

--



Map of Hole

STATE OF OREGON  
WELL LOCATION MAP

This map is supplemental to the WATER SUPPLY WELL REPORT

Oregon Water Resources Department

725 Summer St NE, Salem OR 97301  
(503)986-0900



LOCATION OF WELL

Latitude: 44.26074000 Datum: WGS84

Longitude: -121.25300000

Township/Range/Section/Quarter-Quarter Section:

WM15.00S12.00E23NENE

Address of Well:

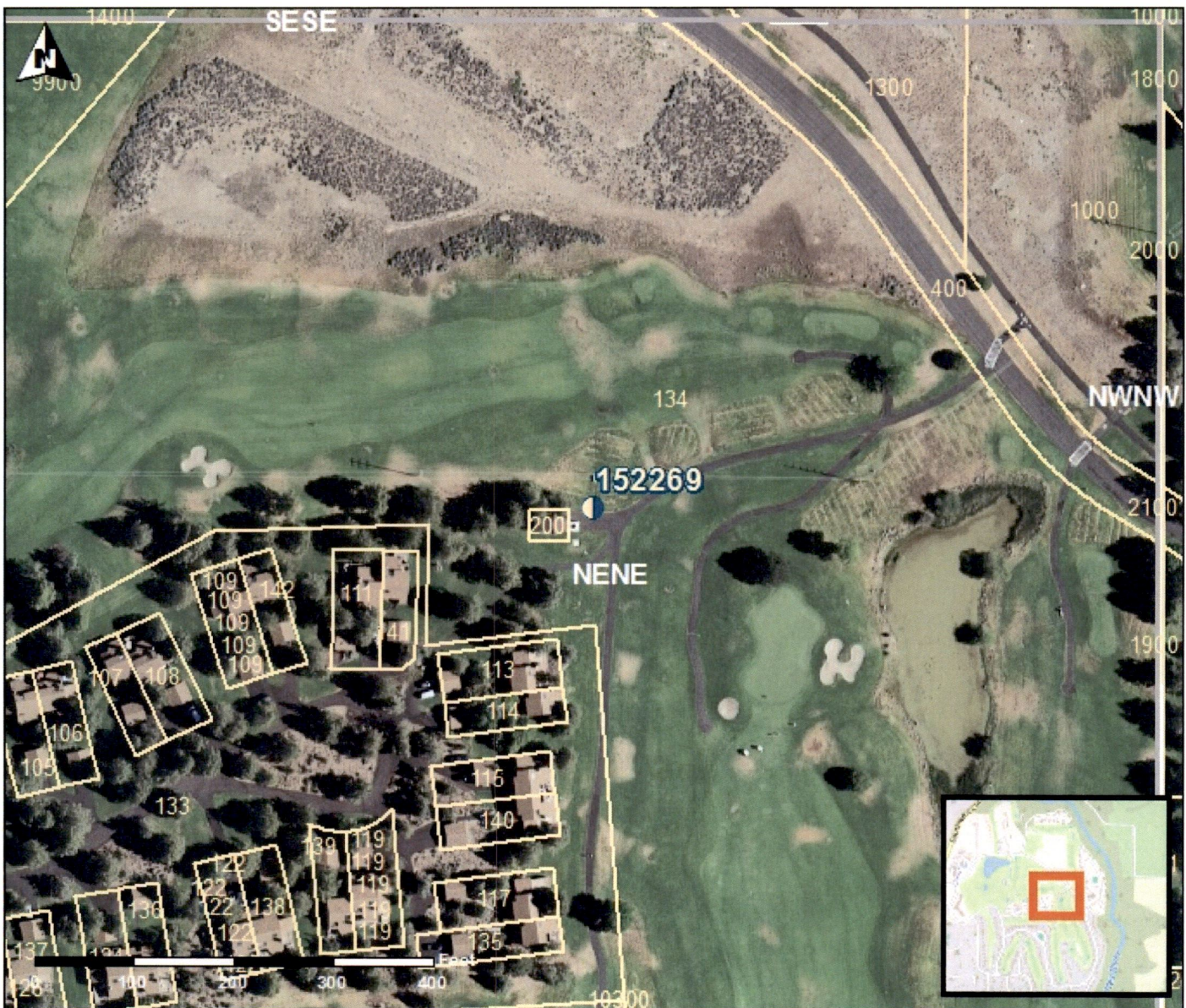
T15 R12 S23 TL134 ROBIN CT

Well Label: 152269

Printed: April 22, 2024

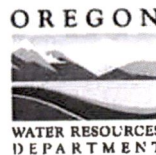
DISCLAIMER: This map is intended to represent the  
approximate location the well. It is not intended to  
be construed as survey accurate in any manner.

Provided by well constructor





# Land Use Information Form



Mailing Date:  
Oregon Water Resources Department  
725 Summer Street NE, Suite A  
Salem, Oregon 97301-1266  
(503) 986-0900  
www.oregon.gov/OWRD

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## NOTE TO APPLICANTS

In order for your application to be processed by the Oregon Water Resources Department (OWRD), this Land Use Information Form must be completed by a local government planning official in the jurisdiction(s) where your water right will be diverted, conveyed, used, and developed. The planning official may choose to complete the form while you wait or return the "Receipt Acknowledging Request for Land Use Information" to you. Applications received by OWRD without the Land Use Information Form, or the signed receipt, will be returned to you. **IMPORTANT:** Please note that while OWRD can accept a signed receipt as part of intake for an application for a new permit to use or store water, a completed Land Use Information Form is required for OWRD's acceptance of all other applications. Please be aware that your application cannot be approved without land use approval.

This form is **NOT** required if:

- 1) Water is to be diverted, conveyed, and used on federal lands only; **OR**
- 2) The application is for a water right transfer, allocation of conserved water, exchange, permit amendment, or ground water registration modification, and all of the following apply:
  - a. The existing and proposed water use is located entirely within lands zoned for exclusive farm-use or within an irrigation district;
  - b. The application involves a change in place of use only;
  - c. The change does not involve the placement or modification of structures, including but not limited to water diversion, impoundment, distribution facilities, water wells and well houses; and
  - d. The application involves irrigation water uses only.

## NOTE TO LOCAL GOVERNMENTS

The person presenting the attached Land Use Information Form is applying for a new water right or modifying an existing water right. The Oregon Water Resources Department (OWRD) requires applicants to obtain land use information to ensure the water right does not result in land uses that are incompatible with your comprehensive plan. Please complete the form and return it to the applicant for inclusion in their application. **NOTE:** For new water right applications only, if you are unable to complete this form while the applicant waits, you may complete the "Receipt Acknowledging Request for Land Use Information" and return it to the applicant.

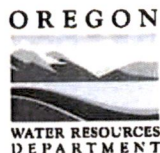
You will receive notice via OWRD's weekly Public Notice once the applicant formally submits their request to OWRD. The notice will give more information about OWRD's water right process and provide additional comment opportunities. If you previously only completed the receipt for an application for a new permit to use or store water, you will have 30 days from the Public Notice date to complete the Land Use Information Form and return it to OWRD. Your attention to this request for information is greatly appreciated. If you have questions concerning this form, please contact OWRD's Customer Service Group at 503-986-0900 or WRD\_DL\_customerservice@water.oregon.gov.

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# Land Use Information Form



**Oregon Water Resources Department**  
725 Summer Street NE, Suite A  
Salem, Oregon 97301-1266  
(503) 986-0900  
www.oregon.gov/OWRD

NAME Eagle Crest Master Association Agent: Niall Boggs, PE, CWRE			PHONE Agent phone: 541-948-5362	
MAILING ADDRESS Attn: ECMA President, PO Box 1215				
CITY Redmond	STATE OR	ZIP 97756	EMAIL karen@resortresources.com Agent email: nboggs@parametrix.com	

## A. Land and Location

Please include the following information for all tax lots where water will be diverted (taken from its source), conveyed (transported), and/or used or developed. Applicants for municipal use, or irrigation uses within irrigation districts, may substitute existing and proposed service-area boundaries for the tax-lot information requested below.

Township	Range	Section	¼ ¼	Tax Lot #	Plan Designation (e.g., Rural Residential/RR-5)	Water to be:	Proposed Land Use:
15S	12E	23	NENE	151223A000200	MUA-10, DR	<input checked="" type="checkbox"/> Diverted <input type="checkbox"/> Conveyed <input type="checkbox"/> Used	Resort Community (unchanged)
15S	12E	23	NWNE	151223A006400	MUA-10, DR	<input checked="" type="checkbox"/> Diverted <input type="checkbox"/> Conveyed <input type="checkbox"/> Used	Resort Community (unchanged)
15S	12E	23	NE1/4 NENW NWNW SE1/4 NESE NWSE	Multiple	MUA-10, DR, RR-10, EFUSC	<input type="checkbox"/> Diverted <input type="checkbox"/> Conveyed <input checked="" type="checkbox"/> Used	Resort Community (unchanged)
15S	12E	14	NESW SE1/4	Multiple	MUA-10, DR, EFUSC, EFUTRB	<input type="checkbox"/> Diverted <input type="checkbox"/> Conveyed <input checked="" type="checkbox"/> Used	Resort Community (unchanged)
15S	12E	13	SWSW	Multiple	MUA-10, DR	<input type="checkbox"/> Diverted <input type="checkbox"/> Conveyed <input checked="" type="checkbox"/> Used	Resort Community (unchanged)
15S	12E	24	NWNW SWNW NWSW SWSW	Multiple	MUA-10, DR	<input type="checkbox"/> Diverted <input type="checkbox"/> Conveyed <input checked="" type="checkbox"/> Used	Resort Community (unchanged)

List all counties and cities where water is proposed to be diverted, conveyed, and/or used or developed:

Deschutes County

**NOTE:** A separate Land Use Information Form must be completed and submitted for each county and city, as applicable.

## B. Description of Proposed Use

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Land Use Information Form — Page 3 of 5

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Last Revised: 10/2023

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Type of application to be filed with the Oregon Water Resources Department:

- ☐ Permit to Use or Store Water    ☒ Water Right Transfer    ☐ Permit Amendment or Ground Water Registration Modification  
☐ Limited Water Use License    ☐ Exchange of Water    ☐ Allocation of Conserved Water

Source of water:    ☐ Reservoir/Pond    ☒ Ground Water    ☐ Surface Water (name) \_\_\_\_\_

Estimated quantity of water needed: \_\_\_\_\_    ☐ cubic feet per second    ☐ gallons per minute    ☐ acre-feet

Intended use of water:    ☐ Irrigation    ☐ Commercial    ☐ Industrial    ☐ Domestic for \_\_\_\_\_ household(s)  
                                  ☐ Municipal    ☒ Quasi-Municipal    ☐ Instream    ☐ Other \_\_\_\_\_

Briefly describe:

Applicant is submitting a water right transfer application for Certificates 95068 and 95069 to add a new point of diversion that will be known as Well 2C. This new well will replace existing Well 2A which is going to be decommissioned. Well 2C is located approximately 43 feet east of existing Well 2A.

**Note to applicant:** For new water right applications only, if the Land Use Information Form cannot be completed while you wait, please have a local government representative sign the receipt on the bottom of page 4 and include it with the application filed with the Oregon Water Resources Department.

See Page 4 →

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## For Local Government Use Only

The following section must be completed by a planning official from each county and city listed unless the project will be located entirely within the city limits. In that case, only the city planning agency must complete this form. This deals only with the local land use plan. Do not include approval for activities such as building or grading permits.

### Please check the appropriate box below and provide the requested information


- ☐ Land uses to be served by the proposed water use(s), including proposed construction, are allowed outright or are not regulated by your comprehensive plan. Cite applicable ordinance section(s): \_\_\_\_\_
- ☒ Land uses to be served by the proposed water use(s), including proposed construction, involve discretionary land-use approvals as listed in the table below. (Please attach documentation of applicable land-use approvals which have already been obtained. Record of Action/land-use decision and accompanying findings are sufficient.) **If approvals have been obtained but all appeal periods have not ended, check "Being Pursued."**

Type of Land-Use Approval Needed (e.g., plan amendments, rezones, conditional-use permits, etc.)	Cite Most Significant, Applicable Plan Policies & Ordinance Section References	Land-Use Approval:	
CU-81-144. Staff notes that more recent Site Plan Review approvals are available.	permits and	<input checked="" type="checkbox"/> Obtained	<input type="checkbox"/> Being Pursued
		<input type="checkbox"/> Denied	<input type="checkbox"/> Not Being Pursued
		<input type="checkbox"/> Obtained	<input type="checkbox"/> Being Pursued
		<input type="checkbox"/> Denied	<input type="checkbox"/> Not Being Pursued
		<input type="checkbox"/> Obtained	<input type="checkbox"/> Being Pursued
		<input type="checkbox"/> Denied	<input type="checkbox"/> Not Being Pursued
		<input type="checkbox"/> Obtained	<input type="checkbox"/> Being Pursued
		<input type="checkbox"/> Denied	<input type="checkbox"/> Not Being Pursued

Local governments are invited to express special land use concerns or make recommendations to the Oregon Water Resources Department regarding this proposed use of water in the box below or on a separate sheet.

See attached letter.

Name: Nathaniel Miller Title: Associate Planner

Signature:  Date: May 21, 2025

Governmental Entity: Deschutes County Phone: 541-317-3164

### Receipt Acknowledging Request for Land Use Information

#### Note to Local Government Representative:

Please complete this form and return it to the applicant. **For new water right applications only**, if you are unable to complete this form while the applicant waits, you may complete this receipt and return it to the applicant. If you sign the receipt, you will have 30 days from the date of OWRD's Public Notice of the application to submit the completed Land Use Information Form to Oregon Water Resources Department. Please note while OWRD can accept a signed receipt as part of intake for an application for a new permit to use or store water, a completed Land Use Information Form is required for all other applications.

Applicant Name: \_\_\_\_\_

Staff Name: \_\_\_\_\_ Title: \_\_\_\_\_

Staff Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Governmental Entity: \_\_\_\_\_ Phone: \_\_\_\_\_

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COMMUNITY DEVELOPMENT

**247-25-000191-PS**

**Subject Properties:**

**Mailing Name:** EAGLE CREST MASTER ASSOCIATION

**Map and Taxlot:** 151223A000200

**Account:** 170026

**Situs Address:** 6875 ROBIN CT, REDMOND, OR 97756

**Mailing Name:** EAGLE CREST MASTER ASSOCIATION ET AL

**Map and Taxlot:** 151223A006400

**Account:** 170628

**Situs Address:** 7220 FALCON CREST DR, REDMOND, OR 97756

**Request:** The applicant has requested a Land Use Compatibility Statement (LUCS) for the Oregon Water Resources Department for water to be diverted from the two properties listed above which are a part of the Eagle Crest Destination Resort. The applicant has proposed that the water will be diverted to multiple other tax lots with the resort. While the specific tax lots are not mentioned, staff understands that these properties are within the resort and entitled through past land use approvals. To the extent that a property is not within the resort and entitlement, it is outside the scope of this LUCS.

The LUCS also includes the following request:

Applicant is submitting a water right transfer application for Certificates 95068 and 95069 to add a new point of diversion that will be known as Well 2C. This new well will replace existing Well 2A which is going to be decommissioned. Well 2C is located approximately 43 feet east of existing Well 2A.

Staff notes that a LUCS was submitted to the Planning Division and processed through file No. 247-23-000836-PS. Within this processed LUCS, staff included the following statement:

The applicant has requested a Land Use Compatibility Statement (LUCS) for the Oregon Health Authority for a replacement well on the properties listed above. Staff notes that Well 2A and 2B are operational. The replacement well identified on the submitted map as 2C will replace 2A. Staff also notes that the current wells are on Tax Lot 200. The replacement well (2C) will be located on Tax Lot 134 (below grade) and will connect to existing distribution infrastructure on Tax Lot 200. This was verified by planning staff by telephone on 02/23/2024.

Staff understands that the current request is a continuation of the project previously addressed in that LUCS.



To the extent other uses or structures are included on the LUCS application sheet, this LUCS does not review or approve those uses.

This LUCS does not review or approve:

- Construction of buildings,
- Earthmoving or construction in floodplains,
- Earthmoving, construction, or vegetation changes in wetlands,
- Surface mining, and/or
- Other primary or accessory uses regulated by the Deschutes County Code

Each of the listed uses may require separate land use permits and/or building permits, which are not covered by this LUCS. This LUCS does not confirm compliance with wetlands or floodplain regulations. On-site sales or on-site processing of farm crops may require additional permits. Any development on the properties are subject to all requirements of Title 18 of the Deschutes County Code (DCC), the requirements of the Environmental Soils and Building Safety Divisions, and the Deschutes County Road Department for access to public roads

For more information, please contact the Planning Division office at 541-388-6560.

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## HEARINGS OFFICER

DESCHUTES COUNTY COURTHOUSE ANNEX BEND, OREGON 97701  
TELEPHONE (503) 388-6626



### FINDINGS AND DECISION

FILE NO:

CU-81-144

APPLICANT:

Chase, Lyche, Wareing and Wareing

REQUEST:

A conditional use application to permit the development of a destination resort.

PLANNING STAFF  
REPRESENTATIVE:

Lin Bernhardt

PLANNING STAFF  
RECOMMENDATION:

Approval

PUBLIC HEARING:

The public hearing was held in room 106, Deschutes County Courthouse Annex, Bend, Oregon on Tuesday, March 9, 1982 and continued for decision only until March 23, 1982, at which time an oral decision was rendered.

BURDEN OF PROOF:

In order to receive approval of this request the applicant must meet the criteria set forth Article 1, Section 1.030(25) of PL-15, Deschutes County Zoning Ordinance and Deschutes County Procedural Ordinance PL-9.

FINDINGS:

1. LOCATION:

The subject property is located easterly off the Cline Falls Highway, approximately 1/2 mile southerly of Highway 126 and is further described as Township 15 south, Range 12 east of the Willamette Meridian and is further described as: Section 24, Tax Lots 200, 201, and 202; Section 13, Tax Lot 2000; Section 14, Tax Lot 700, Section 14, Tax Lot 400, and Section 23, Tax Lots 101, and 102.

2. ZONE:

The subject property is located in an EFU-20, Exclusive Farm Use zone and a MUA-10 zone.



3. COMPREHENSIVE PLAN DESIGNATION:

The subject property is designated as Agriculture on the Comprehensive Plan map.

4. SITE DESCRIPTION:

The subject property is approximately 472 acres in size and the topography is generally level, bordered by rimrock and the Deschutes River on the east, with a vegetative cover of sage brush and juniper trees. There are no structures currently located on the property, and there is no main access to the parcel.

CONCLUSIONS:

The applicant has addressed the criteria set forth in Section 10.049 of PL-15, Deschutes County Zoning Ordinance and Procedural Ordinance PL-9 as follows:

The Deschutes County Year 2000 Comprehensive Plan (page 47) as it relates to rural development, indicates that destination resorts have been found to be economically, and a socially desired land use, when developed consistent with the capabilities of the land and the abilities of the various public and private agencies serving that area. The Comprehensive Plan encourages cluster development in close proximity to utilities or rural service centers to ensure efficient extension of public services. As the documentation indicates, basically relying upon the booklet submitted as exhibit #10 by the applicants, the schematic architectural rendering which is exhibit, the oral presentation made by the applicant and his attorney during the hearing of March 9, 1982. The Hearings Officer finds that the proposed project is four miles from the City of Redmond, and there are existing developments in close proximity to the site. Said services such as water and sewer will be provided on the site.

The Comprehensive Plan (page 108) deals with the realization that much of the seasonal developments are now becoming full-time residents that require school services. The schools have been forced to seek additional funding for buildings and more teachers. This site has a potential impact upon the school services in the area.

However, the revenues generated from the proposed development should more than off-set the increased demand for services in the area of schools. The proposed development will have a substantial impact on tourism, recreation construction and employment in the area. The Deschutes County Comprehensive Plan encourages programs that appropriately increases employment opportunities and especially encouraging recreation and tourism to assist the County's tax base.

From the evidence submitted by the applicant and there being no evidence submitted in opposition, this project will have a favorable social and economic impact. Environmental impacts will be kept at a minimum with site review and conformance with site review standards.

The agricultural production in the area is limited with some residential development occurring in the surrounding area. This project will be compatible with the surrounding area in maintaining its rural character, as the proposed developed is supposed to have an 18 hole golf course and some man-made lakes, thus keeping much of the area in open space. Also, there are some portions of the project that will remain in the agricultural form that surrounds parts of the property. Approximately 70 acres will remain in pasture and undeveloped open space. Of the total project, approximately 80% will remain in open space.

There are a number of single family, five acre parcels in the general area of this proposed development. Those areas have been found previously to be of limited agricultural lands, primarily Class VII soils and of such that a profitable farm income cannot be from the property.

This application includes as part of the conditional use a proposed 18 hole golf course. No separate conditional application will be necessary for the approval of the golf course.

The Master Plan, as submitted and represented in the applicant's exhibit #13, is the controlling document for the development of this destination resort. Any significant changes from exhibit #13 will require a amendment to this Master Plan.

The Hearings Officer finds that this application has met the criteria set forth for conditional uses in the County Ordinances.

DECISION: APPROVAL, subject to the following conditions:

1. The land remaining in the EFU-20, Exclusive Farm Use zone, shall be allowed to develop in line with outright uses in an agricultural zone and will have the right to apply for any conditional use that is listed as a conditional use in an EFU-20 zone, as specified in the Deschutes County Zoning Ordinance.
2. Any signs to be erected shall be approved by the Deschutes County Planning Department in conformance with Ordinance No. 81-009.
3. The location of the proposed restaurant, located in the northerly portion of the property shall be allowed only if it complies with all requirements of the County's Comprehensive Plan Zoning Ordinance and Rimrock Order. If these requirements can not be met, then the Hearings Officer recommends



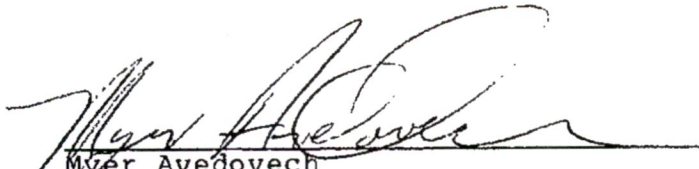
that the restaurant be eliminated or placed in a more appropriate location, in order to protect the rimrock on the property and the rural character of the area.

4. An annual traffic count shall be made by the applicants and approved by the Planning Department, starting at the time development commences.
5. A traffic study approved by the Planning Department and implemented by the applicant shall be completed by November 15, 1984. The applicant hereby agrees to participate in necessary improvements identified in the study and in a direct proportionate share, which can be attributed to the impact of this proposed development, of those needed improvements.
6. The applicant must demonstrate funding ability prior to each phase of the development.
7. There shall be a site plan approval for the time-share units, community facilities and for each phase of development of the project.
8. The proposal, including setbacks for structures to be built along the Deschutes River, shall comply with Deschutes County Zoning Ordinance PL-15 and Subdivision Ordinance 81-043.
9. The sports complex and indoor facilities, offices, golf pro shop, resort maintenance and security facilities, and the fire house shall be completed within three (3) years from the date of approval of the conditional use application. The remaining facilities of the core area and the time-share units shall be completed within six years of approval.
10. Construction of the project shall commence within one year of the approval date. Substantial construction on the project needs to be under way within a reasonable time after the approval date. The Hearings Officer recognizes that the project is to be phased over a period of six years.
11. There shall be a Development Agreement signed between the applicants and Deschutes County to assure continued maintenance of this project.
12. This approval is contingent upon the decision of Zone Change 81-28.

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DATED this 29<sup>th</sup> day of March, 1982.

This decision becomes final fifteen days after date mailed, unless appealed to the Planning Commission by a party of interest.

  
Myer Avedovech  
HEARINGS OFFICER

MA:ch

cc: File  
Planning Commission  
Planning Department  
David Jaqua  
Stanley and Helen Wareing  
Lucile Wareing  
William Lyche  
Frank Chase

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# Application for Water Right Transfer

## Evidence of Use Affidavit



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

Please print legibly or type. Be as specific as possible. Attach additional pages if you need more spacing.  
Supporting documentation must be attached.

State of Oregon )  
 ) ss

County of DESCHUTES

I, NIALL BOGGS, PE, CWRE, in my capacity as CERTIFIED WATER RIGHTS EXAMINER,

mailing address 150 NW PACIFIC PARK LANE SUITE 110, BEND, OR 97701

telephone number (541)948-5362, being first duly sworn depose and say:

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1. My knowledge of the exercise or status of the water right is based on (check one):

☒ Personal observation

☒ Professional expertise

2. I attest that:

☐ Water was used during the previous five years on the **entire** place of use for  
Certificate # \_\_\_\_\_; **OR**

☐ My knowledge is specific to the use of water at the following locations within the last five years:

Certificate #	Township	Range	Mer	Sec	¼ ¼	Gov't Lot or DLC	Acres (if applicable)

**OR**

☒ Confirming Certificate # 95068 & 95069 has been issued within the past five years; **OR**

☐ Part or all of the water right was leased instream at some time within the last five years. The  
instream lease number is: \_\_\_\_\_ (Note: If the entire right proposed for  
transfer was not leased, additional evidence of use is needed for the portion not leased instream.); **OR**

☐ The water right is not subject to forfeiture and documentation that a presumption of forfeiture for non-use  
would be rebutted under ORS 540.610(2) is attached.

☐ Water has been used at the actual current point of diversion or appropriation for more than  
10 years for Certificate # \_\_\_\_\_ (For Historic POD/POA Transfers)

(continues on reverse side)

3. The water right was used for: (e.g., crops, pasture, etc.): QUASI-MUNICIPAL USES SERVING EAGLE CREST RESORT EAST OF THE CLINE BUTTE HIGHWAY

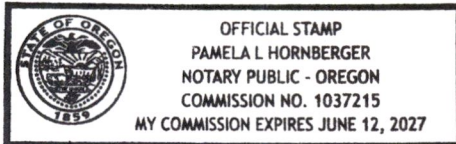
4. I understand that if I do not attach one or more of the documents shown in the table below to support the above statements, my application will be considered incomplete.

*Hiall BH*  
Signature of Affiant

4-3-2025

Date

Signed and sworn to (or affirmed) before me this 13<sup>th</sup> day of APRIL, 2025.



*Pamela L. Hornberger*  
Notary Public for Oregon

My Commission Expires: 6/12/27

Supporting Documents	Examples
<input checked="" type="checkbox"/> Copy of a water right certificate that has been issued within the last five years. (not a remaining right certificate)	Copy of <b>confirming</b> water right certificate that shows issue date
<input type="checkbox"/> Copies of receipts from sales of irrigated crops or for expenditures related to use of water	<ul style="list-style-type: none"><li>• Power usage records for pumps associated with irrigation use</li><li>• Fertilizer or seed bills related to irrigated crops</li><li>• Farmers Co-op sales receipt</li></ul>
<input type="checkbox"/> Records such as FSA crop reports, irrigation district records, NRCS farm management plan, or records of other water suppliers	<ul style="list-style-type: none"><li>• District assessment records for water delivered</li><li>• Crop reports submitted under a federal loan agreement</li><li>• Beneficial use reports from district</li><li>• IRS Farm Usage Deduction Report</li><li>• Agricultural Stabilization Plan</li><li>• CREP Report</li></ul>
<input type="checkbox"/> Aerial photos containing sufficient detail to establish location and date of photograph	Multiple photos can be submitted to resolve different areas of a water right. If the photograph does not print with a "date stamp" or without the source being identified, the date of the photograph and source should be added.  Sources for aerial photos: OSU – <a href="http://www.oregonexplorer.info/imagery">www.oregonexplorer.info/imagery</a> OWRD – <a href="http://www.wrd.state.or.us">www.wrd.state.or.us</a> Google Earth – <a href="http://earth.google.com">earth.google.com</a> TerraServer – <a href="http://www.terra-server.com">www.terra-server.com</a>
<input type="checkbox"/> Approved Lease establishing beneficial use within the last 5 years	Copy of instream lease or lease number

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STATE OF OREGON  
COUNTY OF DESCHUTES  
CERTIFICATE OF WATER RIGHT

**Received**  
**JUN 10 2025**  
**OWRD**

THIS CERTIFICATE ISSUED TO

EAGLE CREST MASTER ASSOCIATION  
ATTN: ECMA PRESIDENT  
PO BOX 1215  
REDMOND OR 97756

confirms the right to the use of water of WELL 2A, WELL 2B, AND WELL 4 in the Deschutes River Basin for QUASI-MUNICIPAL USES.

This right was perfected under Permit G-10957. The date of priority is JUNE 20, 1988. The amount of water used to which this right is entitled is limited to the amount actually used beneficially, and shall not exceed 480 GALLONS PER MINUTE (GPM), FURTHER LIMITED TO 180 GPM FROM WELL 2A, NOT TO EXCEED A CUMULATIVE TOTAL OF 480 GPM IN ANY COMBINATION FROM WELL 2A, WELL 2B, AND WELL 4 or its equivalent in the case of rotation, measured at the wells.

The wells are located as follows:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	12 E	WM	23	NE NE	WELL 2A (ADDITIONAL) - 491 FEET SOUTH AND 2055 FEET EAST FROM N1/4 CORNER, SECTION 23
15 S	12 E	WM	23	NE NE	WELL 2B (ADDITIONAL) - 511 FEET SOUTH AND 2055 FEET EAST FROM N1/4 CORNER, SECTION 23
15 S	12 E	WM	23	NW NE	WELL 4 (ADDITIONAL)- 64 FEET SOUTH AND 692 FEET EAST FROM N1/4 CORNER, SECTION 23

A description of the place of use to which this right is appurtenant is as follows:

QUASI-MUNICIPAL
WITHIN THE EAGLE CREST SERVICE AREA

Water use measurement conditions:

- A. The water user shall maintain the totalizing flow meter or another suitable measuring device as approved by the Director at each point of appropriation in good working order.
- B. The water user shall allow the Watermaster access to the meters or measuring devices; provided however, where the meters or measuring devices are located within a private structure, the Watermaster shall request access upon reasonable notice.

**NOTICE OF RIGHT TO PETITION FOR RECONSIDERATION OR JUDICIAL REVIEW**

This is an order in other than a contested case. This order is subject to judicial review under ORS 183.482. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.482. Pursuant to ORS 183.482, ORS 536.075 and OAR 137-003-0675, you may petition for judicial review and 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.

The water user shall obtain a static water-level measurement for each well during March of each year and report the measurement to the Department within thirty days. The measurement shall be made by a certified water rights examiner, registered professional geologist, certified engineering geologist, professional engineer, licensed well constructor or pump installer licensed by the Construction Contractors Board. Water levels shall be reported as depth-to-water below ground level and shall be accompanied by supporting calculations. If a well listed on this right displays a total static water-level decline of 10 or more feet over any period of years, when compared to the reference level, then the water user shall discontinue use of, or reduce the rate or volume of withdrawal from, the wells. Such action shall be taken until the water level recovers to above the 10-foot decline level or until the Department determines, based on the water user's or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely impacting the resource or senior water rights. The reference level for water-level declines shall be the first or second annual, whichever is higher, measurement taken after water use begins under the terms of this right. The water user shall in no instance allow excessive decline to occur within the aquifer as a result of use under this right.

The quantity of water diverted at the additional points of appropriation, together with that diverted at the original point of appropriation, shall not exceed the quantity of water lawfully available from the original point of appropriation described as follows:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	12 E	WM	23	NW NE	WELL 3 (ORIGINAL) - 104 FEET SOUTH AND 696 FEET EAST FROM N1/4 CORNER, SECTION 23

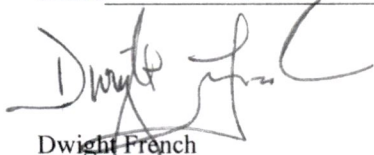
The wells shall be maintained in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works constructed shall include an air line and pressure gauge or an access port for measuring line, adequate to determine the water level elevation in the wells at all times. When required by the Department, the water user shall install and maintain a weir, meter, or other suitable measuring device and keep a complete record of the amount of ground water withdrawn.

The use of water shall be limited when it interferes with any prior right surface or ground water rights.

Water may be applied to lands which are not specifically described above, provided the holder of this right complies with ORS 540.510(3).

This certificate is issued to confirm changes in ADDITIONAL POINTS OF APPROPRIATION AND PLACE OF USE approved by an order of the Water Resources Director entered JULY 31, 2018, at Special Order Volume 108, Page 970, approving Transfer Application T-12724, supersedes Certificate 90565, State Record of Water Right Certificates.

Issued MAY 26 2020



Dwight French  
Water Right Services Division Administrator, for  
Thomas M. Byler, Director  
Oregon Water Resources Department

Received  
JUN 10 2025  
OWRD



STATE OF OREGON  
COUNTY OF DESCHUTES  
CERTIFICATE OF WATER RIGHT

**Received**  
**JUN 10 2025**  
**OWRD**

THIS CERTIFICATE ISSUED TO

EAGLE CREST MASTER ASSOCIATION  
ATTN: ECMA PRESIDENT  
PO BOX 1215  
REDMOND OR 97756

confirms the right to the use of water of WELL 2A, WELL 2B, AND WELL 4 in the Deschutes Basin for QUASI-MUNICIPAL USES.

This right was perfected under Permit G-10530. The date of priority is MAY 20, 1985. The amount of water used to which this right is entitled is limited to the amount actually used beneficially, and shall not exceed 756 GALLONS PER MINUTE (GPM), FURTHER LIMITED TO 570 GPM FROM WELL 2A, 600 GPM FROM WELL 2B, AND 546 GPM FROM WELL 4, NOT TO EXCEED A CUMULATIVE TOTAL OF 756 GPM IN ANY COMBINATION FROM WELL 2A, WELL 2B, AND WELL 4, or its equivalent in the case of rotation, measured at the wells.

The wells are located as follows:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	12 E	WM	23	NE NE	WELL 2A (ORIGINAL) - 491 FEET SOUTH AND 2055 FEET EAST FROM N1/4 CORNER, SECTION 23
15 S	12 E	WM	23	NE NE	WELL 2B (ADDITIONAL) - 511 FEET SOUTH AND 2055 FEET EAST FROM N1/4 CORNER, SECTION 23
15 S	12 E	WM	23	NW NE	WELL 4 (ADDITIONAL) - 64 FEET SOUTH AND 692 FEET EAST FROM N1/4 CORNER, SECTION 23

A description of the place of use to which this right is appurtenant is as follows:

QUASI-MUNICIPAL
WITHIN THE EAGLE CREST SERVICE AREA

Water use measurement conditions:

- A. The water user shall maintain the totalizing flow meter or another suitable measuring device as approved by the Director at each point of appropriation in good working order.
- B. The water user shall allow the Watermaster access to the meters or measuring devices; provided however, where the meters or measuring devices are located within a private structure, the Watermaster shall request access upon reasonable notice.

**NOTICE OF RIGHT TO PETITION FOR RECONSIDERATION OR JUDICIAL REVIEW**

This is an order in other than a contested case. This order is subject to judicial review under ORS 183.482. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.482. Pursuant to ORS 183.482, ORS 536.075 and OAR 137-003-0675, you may petition for judicial review and 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.

The water user shall obtain a static water-level measurement for each well during March of each year and report the measurement to the Department within thirty days. The measurement shall be made by a certified water rights examiner, registered professional geologist, certified engineering geologist, professional engineer, licensed well constructor or pump installer licensed by the Construction Contractors Board. Water levels shall be reported as depth-to-water below ground level and shall be accompanied by supporting calculations. If a well listed on this right displays a total static water-level decline of 10 or more feet over any period of years, when compared to the reference level, then the water user shall discontinue use of, or reduce the rate or volume of withdrawal from, the wells. Such action shall be taken until the water level recovers to above the 10-foot decline level or until the Department determines, based on the water user's or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely impacting the resource or senior water rights. The reference level for water-level declines shall be the first or second annual, whichever is higher, measurement taken after water use begins under the terms of this right. The water user shall in no instance allow excessive decline to occur within the aquifer as a result of use under this right.

The quantity of water diverted at the additional points of appropriation, together with that diverted at the original points of appropriation, shall not exceed the quantity of water lawfully available from the original points of appropriation described as follows:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	12 E	WM	23	NE NE	WELL 2A (ORIGINAL) - 491 FEET SOUTH AND 2055 FEET EAST FROM N1/4 CORNER, SECTION 23
15 S	12 E	WM	23	NW NE	WELL 3 (ORIGINAL) - 104 FEET SOUTH AND 696 FEET EAST FROM N1/4 CORNER, SECTION 23

The wells shall be maintained in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works constructed shall include an air line and pressure gauge or an access port for measuring line, adequate to determine the water level elevation in the wells at all times. The water user shall maintain a weir, meter, or other suitable measuring device and keep a complete record of the amount of ground water withdrawn.

The use of water shall be limited when it interferes with any prior surface or ground water rights.

Water may be applied to lands which are not specifically described above, provided the holder of this right complies with ORS 540.510(3).

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described.

This certificate is issued to confirm changes in ADDITIONAL POINTS OF APPROPRIATION and PLACE OF USE approved by an order of the Water Resources Director entered JULY 31, 2018, at Special Order Volume 108, Page 966, approving Transfer Application T-12725, supersedes Certificate 90564, State Record of Water Right Certificates.

Issued MAY 26 2020



Dwight French  
Water Right Services Division Administrator, for  
Thomas M. Byler, Director  
Oregon Water Resources Department

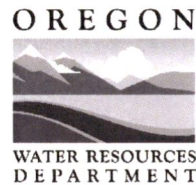
Received  
JUN 10 2025  
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## Supplemental Form D

### Water Right Transfers Within the Boundaries of or Served by an Irrigation District or other Water Supplier (Association, Ditch Co., etc.)

[For transfers submitted under OAR Chapter 690 Division 380]



**Oregon Water Resources Department**  
725 Summer Street NE, Suite A  
Salem, Oregon 97301-1266  
503-986-0900  
[www.oregon.gov/OWRD](http://www.oregon.gov/OWRD)

The Department requires non-district applicants to communicate with districts/water suppliers during the planning and preparation of transfer applications involving water rights having a point of diversion or appropriation (POD/POA), or place of use (POU) for irrigation, served by or located within the boundaries of an irrigation district, or other type of water supplier to which assessments are paid. In some cases, consent will be required from the district or water supplier.

This form must be included with any permanent or temporary transfer application that involves rights served by or located within the boundaries of a district or other type of water supplier.

#### 1. APPLICANT INFORMATION

NAME EAGLE CREST MASTER ASSOCIATION AGENT: NIAL BOGGS, PE, CWRE			PHONE (HM) AGENT PHONE: 541-948-5362	
PHONE (WK) SAME AS (HM)	CELL SAME AS (HM)		FAX N/A	
ADDRESS ATTN: ECMA PRESIDENT, PO BOX 1215				
CITY REDMOND	STATE OR	ZIP 97756	E-MAIL** <a href="mailto:KAREN@RESORTRESOURCES.COM">KAREN@RESORTRESOURCES.COM</a> AGENT EMAIL: NBOGGS@PARAMETRIX.COM	

#### 2. DISTRICT or WATER SUPPLIER INFORMATION

DISTRICT/WATER SUPPLIER NAME SWALLEY IRRIGATION DISTRICT			PHONE (HM) N/A	
PHONE (WK) 541-388-0658	CELL N/A		FAX N/A	
ADDRESS 64672 COOK AVE., STE 1				
CITY BEND	STATE OR	ZIP 97703	E-MAIL** JER@SWALLEY.COM	

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JUN 10 2025  
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**\*\* By providing an e-mail address, the applicant and/or the district/water supplier consents to receive all correspondence from the Department electronically. Copies of final order documents will also be mailed.**

#### 3. WATER RIGHTS ISSUED IN THE NAME OF, or LOCATED WITHIN, or SERVED BY AN IRRIGATION DISTRICT, OTHER DISTRICT, OR WATER SUPPLIER

a. List the water right(s) involved in this transfer:

	Application / Decree	Permit / Previous Transfer	Certificate	Is the water right in the name of a district, water supplier, or BOR*?
1.		T-12724	95068	YES <input checked="" type="checkbox"/>
2.		T-12725	95069	YES <input checked="" type="checkbox"/>
3.		-		YES <input type="checkbox"/>

Attach additional pages for additional water rights if necessary.

\*Bureau of Reclamation

- b. Determine a district's/water supplier's connection to your points of diversion (POD) or appropriation (POA), and/or if your use is or will be for irrigation determine the same for your place of use (POU).  
[You may need to consult with your district/water supplier.]

**CURRENT ASSOCIATIONS** Please answer the following "yes" or "no" questions:

- YES ☐ NO ☒ One or more of the current POD(s) / POA(s) involved in the transfer are served by a district/water supplier or rely on BOR water.
- YES ☒ NO ☐ All or a portion of the current POU as proposed in this transfer is for irrigation and receives water for either primary or supplemental irrigation from the district/water supplier; i.e., *your right is for irrigation and is currently layered with district or BOR water supplied irrigation right(s).*

**PROPOSED ASSOCIATIONS** Please answer the following "yes" or "no" questions:

- YES ☐ NO ☒ One or more of the proposed POD(s) / POA(s) involved in the transfer are currently served or will be served by a district/water supplier if the transfer is approved or rely on BOR water.
- YES ☒ NO ☐ All or a portion of the proposed POU involved in this proposed transfer is for irrigation and currently receives or will receive either primary or supplemental irrigation from the district/water supplier; i.e., *your proposed POU will become layered with a district/water supplier or BOR water supplied irrigation right(s).*

**COMMENTS OR ADDITIONAL INFORMATION** THE TWO RIGHTS THAT ARE BEING TRANSFERRED ARE QUASI-MUNICIPAL RIGHTS AND HAVE OVERLAP WITH SWALLEY IRRIGATION DISTRICT AND SOME OF ITS IRRIGATION RIGHTS (SWALLEY RIGHTS ARE USED TO IRRIGATE THE GOLF COURSE). THE PURPOSE OF THE TRANSFER IS TO ADD WELL 2C THAT IS REPLACING FAILING WELL 2A, WHICH WILL BE ABANDONED. THERE IS NO PROPOSED CHANGE IN THE RATES, PLACE OF USE, OR TYPES OF USE FOR CERTIFICATES 95068 OR 95609.

**4. APPLICANT'S SIGNATURE**

- (1) I certify that I have notified the district/water supplier about the proposed water right transfer application by [check one]:  
☒ email, ☒ phone, ☐ postal mail, ☐ in person, or ☐ other (please specify) \_\_\_\_\_
- (2) I certify that to the best of my knowledge the information contained in this Supplemental Form D is true and accurate.

Niall Boggs Niall Boggs, PE, CWRE March 26, 2025  
Applicant Signature Name (print) Date

**5. (WHEN REQUIRED) DISTRICT or WATER SUPPLIER CONSENT TO THE PROPOSED WATER RIGHT TRANSFER**

District Manager or Water Supplier consent is required if any box on this form is marked "YES."

The district/water supplier certifies the following:

- (1) The district/water supplier has reviewed the applicant's proposed water right transfer application and maps; and
- (2) The district/water supplier consents to the proposed water right transfer application.

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YES ☐ NO ☒ After proof of completion, the confirming water right certificate is to remain in the name of the U.S. Bureau of Reclamation or the district/water supplier.

YES ☐ NO ☒ The district/water supplier will be responsible for submitting the claim of beneficial use prepared by a Certified Water Rights Examiner (CWRE).

  
\_\_\_\_\_  
Signature of District Manager /Water Supplier

Jer Camarata, GM/Brd Sec  
\_\_\_\_\_  
Name (print), Title

3/31/2025  
\_\_\_\_\_  
Date

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**CGE COMPLETION REPORT**  
**OHA – DWS SUBMITTAL**

**Received**

**JUN 10 2025**

**OWRD**

14673 - 





21145 Scottsdale DR, Bend, Oregon 97701  
360-907-4162 newtonjim@hotmail.com

November 26, 2024

Carrie Gentry, PE  
Regional Engineer  
Oregon Health Authority – Drinking Water Services  
800 NE Oregon ST, Suite 640  
Portland, Oregon 97232-2162

**RE: WELL COMPLETION NOTIFICATION FOR OREGON HEALTH AUTHORITY – DRINKING  
WATER SERVICES PLAN REVIEW PR#163-2023; NEW REPLACEMENT WELL 2; EAGLE  
CREST RESORT COMMUNITY WATER SYSTEM, SYSTEM OR41-01355; REDMOND,  
DESCHUTES COUNTY, OREGON**

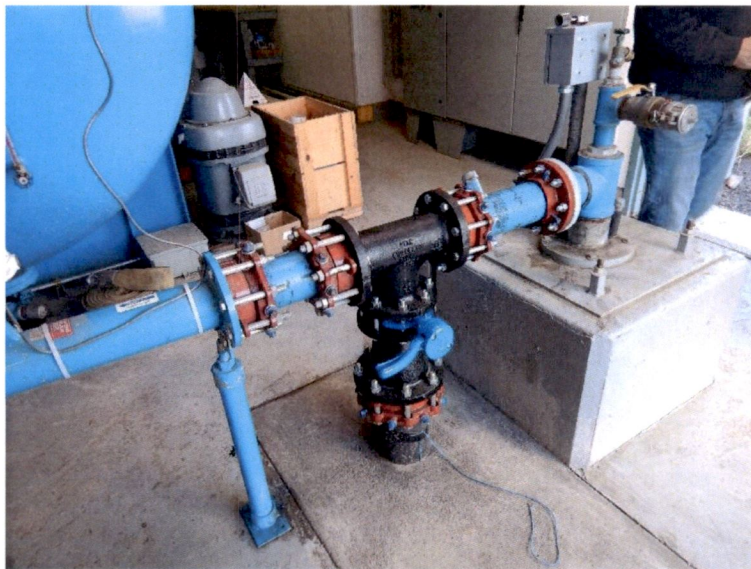
Dear Carrie:

This letter has been prepared by Cascade Geoengineering, LLC (CGE) to provide the final notification to the Oregon Health Authority-Drinking Water Services (DWS) of well completion for the new Well #2c for Eagle Crest Resort Community Plan Review #163-2023, water system ID#OR-01355. With the well and well tie to existing system completed (currently isolated until DWS approval provided), the following information has been included herein as requested in the DWS conditional plan review approval letter dated January 29, 2024:

- Oregon Water Resources Department (OWRD) well driller log DESC-64649, attached;

- Well pumping test information:
  - Static water level prior to pump test: 267.83 feet below ground surface (bgs)prior to pump test;
  - Average flow rate during a 4-hour pump test (actual time 4 hours and 3 minutes) of 414 gallons per minute (gpm);
  - Total drawdown during test recorded as 20.5 feet; recovery to pre-pumping static was within approximately 4 minutes (recovered to within 1.1 feet of pre-pumping static).
- Well pump information provided on the attached sheets from Cascade Pump & Irrigation and Goulds Pump Curve.
- Completion photographs of the pitless unit well head, piping from well to pump station building, water system tie-in infrastructure piping and connection to existing system and the existing pump to waste and additional sampling port. All materials used in the well construction and water system completion were NSF 61 approved materials.
- The Deschutes County signed LUCS in section A.
- Water quality water test data is included as an attachment and all are passing, including: coliform bacteria, IOC, SOC, VOC and radionuclides. All water samples were collected from the raw water tap at the well head.

#### Site Photographs



**Photograph 1.** The above photograph shows the tie in of the new well (black pipe with isolation valve) with completed floor concrete pour. Well 2a (being replaced by new Well 2c, to the right of the photograph with



existing pump to waste & sample port to be reused after pump is removed from Well 2a and lower pipe 'T' capped).



**Photograph 2.** The above photograph shows the piping from the new pitless unit well head into the building and tie-in to the existing water system. The piping is ductile iron water pipe with MegaLug flanges, NSF 61 approved materials.



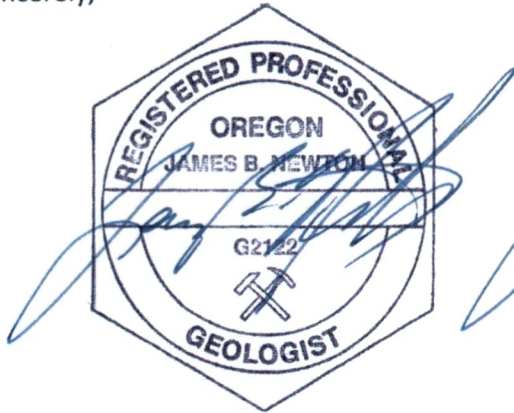
**Photograph 3.** The above photograph shows the completed well head with pitless unit (with integrated sampling port) with the previous Photograph 2 pipe trench completed and asphalt patched for building approach for maintenance equipment access.



## Closure

If you have questions regarding this memorandum, please feel free to contact me at your convenience, I can be reached by telephone at 360-907-4162, or email [newtonjim@hotmail.com](mailto:newtonjim@hotmail.com).

Sincerely,



Renews 5/1/2025



Renews 1/1/2025

Jim Newton, PE, RG, CWRE  
Principal – Engineer-Geologist





14673 -



## Map of Hole

### STATE OF OREGON WELL LOCATION MAP

This map is supplemental to the WATER SUPPLY WELL REPORT

### Oregon Water Resources Department

725 Summer St NE, Salem OR 97301  
(503)986-0900



#### LOCATION OF WELL

Latitude: 44.26074000 Datum: WGS84

Longitude: -121.25300000

Township/Range/Section/Quarter-Quarter Section:

WM15.00S12.00E23NENE

Address of Well:

T15 R12 S23 TL134 ROBIN CT

**Well Label: 152269**

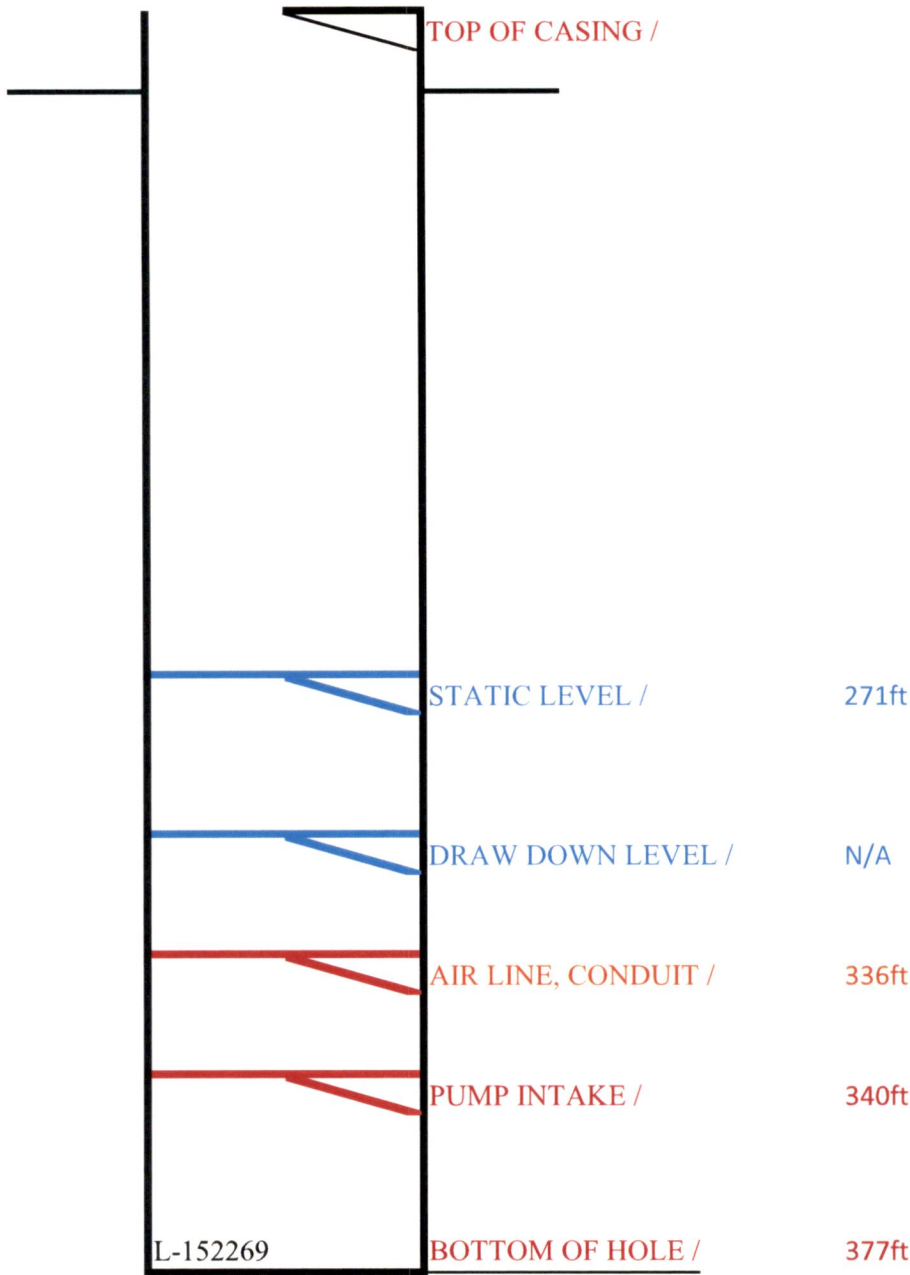
**Printed: April 22, 2024**

DISCLAIMER: This map is intended to represent the  
approximate location the well. It is not intended to  
be construed as survey accurate in any manner.

Provided by well constructor







MOTOR ID#  
SME-A 6-25HP  
460V, 3PH, 3600RPM  
Note:  
Induction tube installed

PUMP ID#  
Gould  
6CLC-8    146GPM @ 500TDH

**Cascade Pump Irrigation Services, LLC**

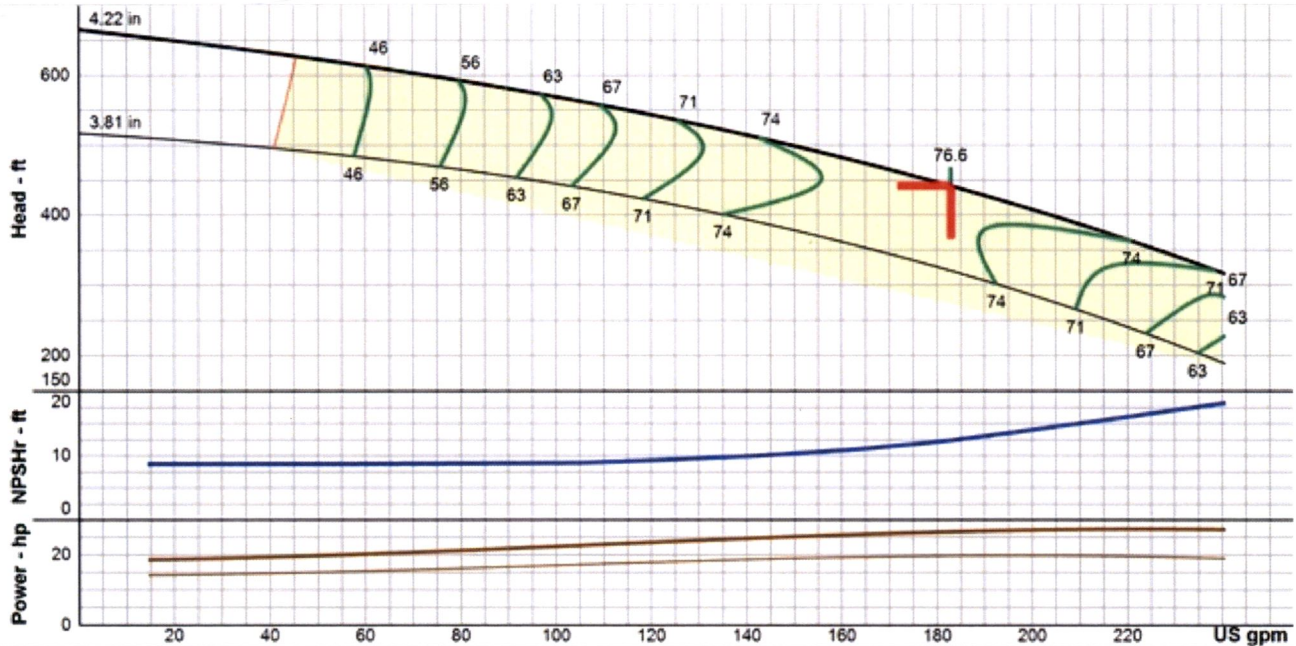
62967 Layton Ave,\* Bend, Oregon 97701 \* Phone: (541) 389-7867 \* Fax: (541) 389-2267

14673 -

Product Name: VIS - Submersible Vertical Turbine(Borehole) Pumps  
Product Id: VIS

Quote Number

9003-221202-011



**Curve & hydraulic data presented is nominal performance based on ANSI/HI 14.6 acceptance grade 2B. Design values are guaranteed within the following tolerances: Flow  $\pm 8\%$ , Head  $\pm 5\%$ , and optionally either Power  $\pm 8\%$  or Efficiency  $\pm 5\%$  at manufacturer's discretion.**

Series	VIS	Max Power on Design Curve	27.30 Hp
Size	6CLC	Flow at BEP	183 USgpm
Additional Size	-	Head at BEP	442 ft
Speed	3,460 RPM	NPSH Required	12.4 ft
Number of Stages	8	Specified NPSH Avail.	33.17 ft
Frequency	60 Hz	Specified NPSH Avail. Margin	1.1
Impeller Trim	4.22 in	Min Flow	45.7 USgpm
Additional Impeller	-	Shut Off Head	666 ft
Specified Flow	$\infty$ USgpm	Shut Off Power	18.4 Hp
Specified Head	$\infty$ ft	Shut Off Disc Pressure	288 psi
Flow at Design	$\infty$ USgpm	Fluid Type	Water
Head at Design	441 ft	Water Temperature	68 °F
Run Out Flow	241 USgpm	Allowable Sphere Size	0.47 in
Run Out Head	316 ft	Exact Bowl Diameter	5.9 in
Run Out Power	27.2 Hp	Thrust K Factor	2.1 lb/ft
Run Out Efficiency	70.6 %	Add Thrust K Factor	2.1 lb/ft
Run Out NPSHr	18.2 ft	Max Lateral	0.25 in
Efficiency at Design	76.60 %	Total Flow Derate Factor	1
Guaranteed Efficiency at Design	72.77 %	Total Head Derate Factor	1
Best Efficiency	76.6 %	Total Efficiency Derate Factor	1
Driver Size	30 Hp	Total NPSHr Derate Factor	1
Power at Design	27 Hp	Acceptance Grade	2B
Guaranteed Power	28.73 Hp		
Flow on Design Trim @ Max Power	226 USgpm		
Service Factor	No		





Burlington, WA Corporate Laboratory (a)  
1620 S Walnut St - Burlington, WA 98233 - 800.755.9295 • 360.757.1400  
Bellingham, WA Microbiology (b)  
805 Orchard Dr Ste 4 - Bellingham, WA 98225 - 360.715.1212

Portland, OR Microbiology/Chemistry (c)  
9725 SW Commerce Cr Ste A2 - Wilsonville, OR 97070 - 503.682.7802  
Corvallis, OR Microbiology/Chemistry (d)  
1100 NE Circle Blvd, Ste 130 - Corvallis, OR 97330 - 541.753.4946  
Bend, OR Microbiology (e)  
20332 Empire Blvd Ste 4 - Bend, OR 97701 - 541.639.8425



ORELAP 4072  
Idaho WA00097  
Page 1 of 1

## ORGANICS IN DRINKING WATER

Client Name: Oregon Water Utilities  
1230 Golden Pheasant Dr.  
Redmond, OR 97756

Reference Number: 24-14739  
Project: ECMA Well 2C

System Name: EAGLE CREST RESORT  
System ID Number: 4101355  
DWP Source Number: DIST-  
Multiple Sources:  
Sample Type:  
Sample Purpose: Investigative or Other  
Sample Composition: Single Source  
Sample Location: Well 2C  
County: Deschutes

Field ID: L-155269 Sample Port  
Lab Number: 24\_27786  
Date Collected: 5/22/24 13:48  
Sampled By: JN  
Sampler Phone:  
Report Date: 7/3/24  
Approved By: ma,pdm

Authorized By:

*Michelle R Angland*  
Michelle R Angland  
Lab Manager, Bend

EPA#	COMPOUNDS	RESULTS	UNITS	LRL	MCL	METHOD	Analyst	Lab	Analyzed	COMMENT
	<b>Synthetic Organic Chemicals</b>									
2105	2,4 - D	ND	mg/L	0.0001	0.070	515.4	MA	4072	06/04/24	
2110	2,4,5 - TP (SILVEX)	ND	mg/L	0.0001	0.050	515.4	MA	4072	06/04/24	
2035	DI(2-ETHYLHEXYL)-ADIPATE	ND	mg/L	0.0001	0.400	525.2	MA	4072	06/04/24	
2051	ALACHLOR	ND	mg/L	0.0001	0.002	525.2	MA	4072	06/04/24	
2050	ATRAZINE	ND	mg/L	0.0001	0.003	525.2	MA	4072	06/04/24	
2306	BENZO(A)PYRENE	ND	mg/L	0.00001	0.0002	525.2	MA	4072	06/04/24	
2010	LINDANE (BHC - GAMMA)	ND	mg/L	0.00001	0.0002	525.2	MA	4072	06/04/24	
2046	CARBOFURAN	ND	mg/L	0.0005	0.040	531.2	MA	4072	06/05/24	
2959	CHLORDANE	ND	mg/L	0.0001	0.002	508.1	MA	4072	06/07/24	
2031	DALAPON	ND	mg/L	0.0005	0.200	515.4	MA	4072	06/04/24	
2931	1,2-DIBROMO-3-CHLOROPROPANE (DB	ND	mg/L	0.00001	0.0002	504.1	GKH	4072	06/05/24	
2041	DINOSEB	ND	mg/L	0.0001	0.007	515.4	MA	4072	06/04/24	
2032	DIQUAT	ND	mg/L	0.0004	0.020	549.2	ENN	4072	06/04/24	
2033	ENDOTHALL	ND	mg/L	0.005	0.100	548.1	MA	4072	05/28/24	
2005	ENDRIN	ND	mg/L	0.00001	0.002	525.2	MA	4072	06/04/24	
2946	1,2 - DIBROMOETHANE (EDB)	ND	mg/L	0.00001	0.00005	504.1	GKH	4072	06/05/24	
2034	GLYPHOSATE	ND	mg/L	0.005	0.700	547	MA	4072	05/30/24	
2067	HEPTACHLOR EPOXIDE "B"	ND	mg/L	0.00001	0.0002	525.2	MA	4072	06/04/24	
2065	HEPTACHLOR	ND	mg/L	0.00001	0.0004	525.2	MA	4072	06/04/24	
2274	HEXACHLOROBENZENE	ND	mg/L	0.0001	0.001	525.2	MA	4072	06/04/24	
2042	HEXACHLOROCYCLO-PENTADIENE	ND	mg/L	0.0001	0.050	525.2	MA	4072	06/04/24	
2015	METHOXYCHLOR	ND	mg/L	0.0001	0.040	525.2	MA	4072	06/04/24	
2326	PENTACHLOROPHENOL	ND	mg/L	0.00004	0.001	515.4	MA	4072	06/04/24	
2039	DI(2-ETHYLHEXYL)-PHTHALATE	ND	mg/L	0.0005	0.006	525.2	MA	4072	06/04/24	
2040	PICLORAM	ND	mg/L	0.0001	0.500	515.4	MA	4072	06/04/24	
2037	SIMAZINE	ND	mg/L	0.00001	0.004	525.2	MA	4072	06/04/24	
2020	TOXAPHENE	ND	mg/L	0.001	0.003	508.1	MA	4072	06/07/24	
2036	OXAMYL (VYDATE)	ND	mg/L	0.0005	0.200	531.2	MA	4072	06/05/24	
2383	PCBS (Total Aroclors)	ND	mg/L	0.0002	0.0005	508.1	MA	4072	06/07/24	

### NOTES:

MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; a blank MCL value indicates a level is not currently established.  
ND (Not Detected): indicates that the parameter was not detected above the Lower Reporting Limit (LRL).

An \* in front of the parameter name indicates it is not NELAP accredited but it is accredited through WSDOH or USEPA Region 10.

These test results meet all the requirements of NELAP, unless otherwise stated in writing, and relate only to these samples. Estimates of uncertainty are not included in this report. If this information is required please contact us at the phone number listed in the report header.

If you have any questions concerning this report contact Lawrence Henderson at the above phone number.

FORM: SOC\_OR

14673 -



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Bend, OR Microbiology (e)  
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Page 1 of 1

## INORGANIC COMPOUNDS (IOC) REPORT

Client Name: Oregon Water Utilities  
1230 Golden Pheasant Dr.  
Redmond, OR 97756

Reference Number: 24-14739  
Project: ECMA Well 2C

System Name: EAGLE CREST RESORT  
System ID Number: 4101355  
Source Number: DIST-  
Multiple Sources:  
Sample Type:  
Sample Purpose: Investigative or Other  
Sample Location: Well 2C  
County: Deschutes

Sample Number: L-155269 Sample Port  
Lab Number: 24\_27786  
Collect Date: 5/22/24 13:48  
Date Received: 5/22/24  
Report Date: 7/3/24  
Sampled By: JN  
Sampler Phone:  
Approved by: anp,bj,mcs,mra,tjb  
Authorized by:

*Michelle R Angland*  
Michelle R Angland  
Lab Manager, Bend

EPA#	ANALYTES	RESULTS	UNITS	LRL	MCL	Analyst	Lab Code*	METHOD	Analyzed	COMMENT
1074	ANTIMONY	ND	mg/L	0.001	0.006	bj	4072 a	200.8	05/30/24	
1005	ARSENIC	ND	mg/L	0.001	0.010	bj	4072 a	200.8	05/30/24	
1010	BARIUM	0.0127	mg/L	0.001	2	bj	4072 a	200.8	05/30/24	
1075	BERYLLIUM	ND	mg/L	0.0003	0.004	bj	4072 a	200.8	05/30/24	
1015	CADMIUM	ND	mg/L	0.001	0.005	bj	4072 a	200.8	05/30/24	
1020	CHROMIUM	0.0011	mg/L	0.001	0.1	bj	4072 a	200.8	05/30/24	
1024	CYANIDE, AVAILABLE	ND	mg/L	0.005	0.2	mso	4072 a	OIA-1677-DW	05/24/24	
1025	FLUORIDE	0.10	mg/L	0.10	4	jwn	4072 a	300.0	05/24/24	
1030	LEAD	ND	mg/L	0.001	0.015	bj	4072 a	200.8	05/30/24	
1035	MERCURY	ND	mg/L	0.0001	0.002	tjb	4072 a	200.8	05/24/24	
1036	NICKEL	ND	mg/L	0.001		bj	4072 a	200.8	05/30/24	
1040	NITRATE-N	1.18	mg/L	0.005	10	kcs	4075 e	SM4500-NO3 F	05/24/24 11:23	
1041	NITRITE-N	ND	mg/L	0.005	1	kcs	4075 e	SM4500-NO3 F	05/24/24 11:23	
1038	TOTAL NITRATE+NITRITE as N	1.18	mg/L	0.10	10	kcs	4075 e	SM4500-NO3 F	05/24/24 11:23	
1045	SELENIUM	ND	mg/L	0.002	0.05	bj	4072 a	200.8	05/30/24	
1052	SODIUM	18.7	mg/L	0.5	200	bj	4072 a	200.7	05/28/24	
1085	THALLIUM	ND	mg/L	0.0001	0.002	bj	4072 a	200.8	05/30/24	
4006	Radiological URANIUM	0.0028	mg/L	0.001	0.030	bj	4072 a	200.8	05/30/24	
4000	GROSS ALPHA	ND	pCi/L	3	15	ket	156	900.0	06/14/24	Analyzed by PacePA
4100	GROSS BETA	4.50	pCi/L	4	50	ket	156	900.0	06/14/24	Analyzed by PacePA
	Radium 226	ND	pCi/L	1		clm	156	903.1	06/20/24	Analyzed by PacePA
	Radium 228	ND	pCi/L	1	5	jjs1	156	904.0	06/18/24	Analyzed by PacePA
	Radium 226,228 (combined)	ND	pCi/L	1	5	ll1	156	903.1/904.0	06/18/24	Analyzed by Pace

### NOTES:

ND (Not Detected): indicates that the parameter was not detected above the Lower Reporting limit (LRL).

MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.

\* Lab Code - lists the laboratory accreditation code plus a letter at the far right to indicate the Edge Analytical lab facility where the analyses was performed.

An \* in front of the parameter name indicates it is not NELAP accredited but it is accredited through WSDOH or USEPA Region 10.

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If you have any questions concerning this report contact us at the above phone number.

FORM: cIOC OR.rpt

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20332 Empire Blvd Ste 4 - Bend, OR 97701 • 541.639.8425



Page 1 of 1

Reference Number: **24-14739**

System ID Number: **4101355**

System Name: **EAGLE CREST RESORT**

Sampler Phone:

FAX/Email: **blimbeck@swwc.com; newtonjim@hotmail.com**

Authorized by:

Michelle R Angland  
Lab Manager, Bend

Client Name: **Oregon Water Utilities**  
**1230 Golden Pheasant Dr.**  
**Redmond, OR 97756**

ORELAP #: **4075**

Lab Sample #: **24\_27786**

Project: **ECMA Well 2C**

Date Collected: **5/22/24 13:48**

Sampled By: **JN**

Sample Location: **Well 2C**

Sampler Phone Number:

Field ID: **L-155269 Sample Port**

Sample Type: **SP - Special**

Sample Purpose: **Investigative or Other**

Free Chlorine:

Treatment: **None**

Original Sample Date:

Repeat Sample Number:

Date Received: **5/22/24 16:15**

Analysis Start: **5/22/24 16:35**

Prep Analyst: **KRH**

Method: **SM9223 B / Colilert-18**

Date Analyzed: **5/23/24 10:45**

Analyst: **krh**

Approved By: **kcs**

## Test Results

PARAMETER	RESULT
<b>TOTAL COLIFORM</b>	<b>Satisfactory, Coliforms Absent</b>
<b>E. Coli</b>	<b>Absent</b>

Sample Invalidation:

☐ Other: \_\_\_\_\_

Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP unless otherwise noted. This report shall not be reproduced, except in full, and with written consent of this laboratory.

If the sample is unsatisfactory you can get information at the health department website.

### NOTES:

If the result is Unsatisfactory a repeat sample is required for Public Water Systems. Private individuals should investigate the cause of the unsatisfactory result and resample. If E. Coli or Fecal Coliform are present in sample do not drink the water until it is properly treated.



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ORELAP 4072  
Idaho WA00097

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## VOLATILE ORGANIC COMPOUNDS (VOC) REPORT

Client Name: Oregon Water Utilities  
1230 Golden Pheasant Dr.  
Redmond, OR 97756

Reference Number: 24-14739  
Project: ECMA Well 2C

System Name: EAGLE CREST RESORT  
System ID Number: 4101355  
DWP Source Number: DIST-  
Multiple Sources:  
Sample Type:  
Sample Purpose: Investigative or Other  
Sample Location: Well 2C  
County: Deschutes  
Sampled By: JN  
Sampler Phone:

Field ID: L-155269 Sample Port  
Lab Number: 24\_27786  
Date Collected: 5/22/24 13:48  
Date Extracted: 524\_240604  
Date Analyzed: 06/04/24  
Report Date: 7/3/24  
Analyst: NML  
Approved By: pdm

Authorized By:

Michelle R Angland  
Lab Manager, Bend

EPA#	COMPOUNDS	RESULTS	UNITS	LRL	MCL	Method	Lab Code*	COMMENT
	<b>EPA/State Regulated</b>							
2977	1,1 - DICHLOROETHYLENE	ND	mg/L	0.0005	0.007	524.2	4072 a	
2981	1,1,1 - TRICHLOROETHANE	ND	mg/L	0.0005	0.200	524.2	4072 a	
2985	1,1,2 - TRICHLOROETHANE	ND	mg/L	0.0005	0.005	524.2	4072 a	
2980	1,2 - DICHLOROETHANE	ND	mg/L	0.0005	0.005	524.2	4072 a	
2983	1,2 - DICHLOROPROPANE	ND	mg/L	0.0005	0.005	524.2	4072 a	
2378	1,2,4 - TRICHLOROBENZENE	ND	mg/L	0.0005	0.070	524.2	4072 a	
2990	BENZENE	ND	mg/L	0.0005	0.005	524.2	4072 a	
2982	CARBON TETRACHLORIDE	ND	mg/L	0.0005	0.005	524.2	4072 a	
2989	CHLOROBENZENE	ND	mg/L	0.0005	0.100	524.2	4072 a	
2380	CIS - 1,2 - DICHLOROETHYLENE	ND	mg/L	0.0005	0.070	524.2	4072 a	
2992	ETHYLBENZENE	ND	mg/L	0.0005	0.700	524.2	4072 a	
2964	METHYLENE CHLORIDE (Dichloromethane)	ND	mg/L	0.0005	0.005	524.2	4072 a	
2968	O - DICHLOROBENZENE	ND	mg/L	0.0005	0.600	524.2	4072 a	
2969	P - DICHLOROBENZENE	ND	mg/L	0.0005	0.075	524.2	4072 a	
2996	STYRENE	ND	mg/L	0.0005	0.100	524.2	4072 a	
2979	T - 1,2 - DICHLOROETHYLENE	ND	mg/L	0.0005	0.100	524.2	4072 a	
2987	TETRACHLOROETHYLENE	ND	mg/L	0.0005	0.005	524.2	4072 a	
2991	TOLUENE	ND	mg/L	0.0005	1.0	524.2	4072 a	
2955	TOTAL XYLENES	ND	mg/L	0.0005	10.0	524.2	4072 a	
2984	TRICHLOROETHYLENE	ND	mg/L	0.0005	0.005	524.2	4072 a	
2976	VINYL CHLORIDE	ND	mg/L	0.0005	0.002	524.2	4072 a	

### NOTES:

If a compound is detected > or = to the Lower Reporting Level, LRL, specified increased monitoring frequencies may occur per PHD.

MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA. Blank MCL value indicates a level is not currently established.

ND (Not Detected): indicates that the parameter was not detected above the Lower Reporting Limit (LRL).

\* Lab Code - lists the laboratory accreditation code plus a letter at the far right to indicate the Edge Analytical lab facility where the analyses was performed.

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If you have any questions concerning this report contact our office at the above phone number.

FORM: cVOC OR.rpt

14673 -





## SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Reference Number: **24-14739**

Report Date: 07/03/24

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits*	QC Qualifier Type	QC	Comment
<b>Calibration Check</b>										
1677_240524	0 CYANIDE, AVAILABLE	0.103	0.100	mg/L	OIA-1677-DW	103	90-110	CAL		
200.7_240528B4	2 SODIUM	10.6	11	mg/L	200.7	96	90-110	CAL		
200.8_240524HG	0 MERCURY	0.00011	0.0001	mg/L	200.8	110	80-120	CAL		
200.8_240530A4	0 URANIUM	0.00104	0.001	mg/L	200.8	104	80-120	CAL		
	0 ANTIMONY	0.00106	0.001	mg/L	200.8	106	80-120	CAL		
	0 ARSENIC	0.00098	0.001	mg/L	200.8	98	80-120	CAL		
	0 BARIUM	0.00106	0.001	mg/L	200.8	106	80-120	CAL		
	0 BERYLLIUM	0.00104	0.001	mg/L	200.8	104	80-120	CAL		
	0 CADMIUM	0.00104	0.001	mg/L	200.8	104	80-120	CAL		
	0 CHROMIUM	0.00101	0.001	mg/L	200.8	101	80-120	CAL		
	0 LEAD	0.00105	0.001	mg/L	200.8	105	80-120	CAL		
	0 NICKEL	0.00107	0.001	mg/L	200.8	107	80-120	CAL		
	0 SELENIUM	0.00101	0.001	mg/L	200.8	101	80-120	CAL		
	0 THALLIUM	0.00105	0.001	mg/L	200.8	105	80-120	CAL		
549_240528	0 DIQUAT	19.2	20	ug/L	549.2	96	80-120	CAL		
ENO3_240524	0 NITRATE-N	0.55	0.50	mg/L	SM4500-NO3 F	110	90-110	CAL		
	0 NITRITE-N	0.51	0.50	mg/L	SM4500-NO3 F	102	90-110	CAL		
	0 TOTAL NITRATE+NITRITE as N	1.06	1.00	mg/L	SM4500-NO3 F	106	90-110	CAL		
	1 NITRATE-N	0.53	0.50	mg/L	SM4500-NO3 F	106	90-110	CAL		
	1 NITRITE-N	0.52	0.50	mg/L	SM4500-NO3 F	104	90-110	CAL		
	1 TOTAL NITRATE+NITRITE as N	1.05	1.00	mg/L	SM4500-NO3 F	105	90-110	CAL		
IC05_240524A	0 FLUORIDE	0.93	1	mg/L	300.0	93	90-110	CAL		
<b>Low-Level Continuing Calibration Verification</b>										
549_240528	2 DIQUAT	0.37	0.4	ug/L	549.2	93	50-150	LCCV		

\*Notation:

% Recovery = (Result of Analysis)/(True Value) \* 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

FORM: QCIndependent4.rpt

14673 -



## SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Reference Number: **24-14739**

Report Date: 07/03/24

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits*	QC Qualifier Type	QC Comment
<b>Laboratory Fortified Blank</b>									
200.7_240528B4	1 SODIUM	12.3	13	mg/L	200.7	95	85-115	LFB	
200.8_240524HG	0 MERCURY	0.00051	0.0005	mg/L	200.8	102	85-115	LFB	
200.8_240530A4	0 URANIUM	0.0103	0.01	mg/L	200.8	103	85-115	LFB	
	0 ANTIMONY	0.0102	0.01	mg/L	200.8	102	85-115	LFB	
	0 ARSENIC	0.0101	0.01	mg/L	200.8	101	85-115	LFB	
	0 BARIUM	0.0104	0.01	mg/L	200.8	104	85-115	LFB	
	0 BERYLLIUM	0.01	0.01	mg/L	200.8	100	85-115	LFB	
	0 CADMIUM	0.0105	0.01	mg/L	200.8	105	85-115	LFB	
	0 CHROMIUM	0.0108	0.01	mg/L	200.8	108	85-115	LFB	
	0 LEAD	0.0103	0.01	mg/L	200.8	103	85-115	LFB	
	0 NICKEL	0.0112	0.01	mg/L	200.8	112	85-115	LFB	
	0 SELENIUM	0.0103	0.01	mg/L	200.8	103	85-115	LFB	
	0 THALLIUM	0.0106	0.01	mg/L	200.8	106	85-115	LFB	
504_240605	0 1,2 - DIBROMOETHANE (EDB)	0.25	0.25	ug/L	504.1	100	70-130	LFB	
	0 1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0.26	0.25	ug/L	504.1	104	70-130	LFB	
	1 1,2 - DIBROMOETHANE (EDB)	0.22	0.25	ug/L	504.1	88	70-130	LFB	
	1 1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0.25	0.25	ug/L	504.1	100	70-130	LFB	
515_240604	0 2,4 - D	0.554	0.5	ug/L	515.4	111	70-130	LFB	
	0 2,4,5 - TP (SILVEX)	0.552	0.5	ug/L	515.4	110	70-130	LFB	
	0 DINOSEB	0.532	0.5	ug/L	515.4	106	70-130	LFB	
	0 PENTACHLOROPHENOL	0.548	0.5	ug/L	515.4	110	70-130	LFB	
	0 PICLORAM	0.381	0.5	ug/L	515.4	76	70-130	LFB	
	1 2,4 - D	3.13	2.5	ug/L	515.4	125	70-130	LFB	
	1 2,4,5 - TP (SILVEX)	2.96	2.5	ug/L	515.4	118	70-130	LFB	
	1 DALAPON	2.76	2.5	ug/L	515.4	110	70-130	LFB	
	1 DINOSEB	2.83	2.5	ug/L	515.4	113	70-130	LFB	
	1 PENTACHLOROPHENOL	3.01	2.5	ug/L	515.4	120	70-130	LFB	
	1 PICLORAM	2.62	2.5	ug/L	515.4	105	70-130	LFB	
524_240604	0 1,1 - DICHLOROETHYLENE	10.5	10	ug/L	524.2	105	70-130	LFB	
	0 1,1,1 - TRICHLOROETHANE	10.5	10	ug/L	524.2	105	70-130	LFB	
	0 1,1,2 - TRICHLOROETHANE	10.1	10	ug/L	524.2	101	70-130	LFB	
	0 1,2 - DICHLOROETHANE	10.1	10	ug/L	524.2	101	70-130	LFB	
	0 1,2 - DICHLOROPROPANE	10.4	10	ug/L	524.2	104	70-130	LFB	
	0 1,2,4 - TRICHLOROBENZENE	8.5	10	ug/L	524.2	85	70-130	LFB	
	0 BENZENE	10.2	10	ug/L	524.2	102	70-130	LFB	
	0 CARBON TETRACHLORIDE	10.0	10	ug/L	524.2	100	70-130	LFB	
	0 CHLOROBENZENE	10.6	10	ug/L	524.2	106	70-130	LFB	
	0 CIS - 1,2 - DICHLOROETHYLENE	10.6	10	ug/L	524.2	106	70-130	LFB	
	0 ETHYLBENZENE	9.6	10	ug/L	524.2	96	70-130	LFB	
	0 METHYLENE CHLORIDE (Dichloromethane)	10.9	10	ug/L	524.2	109	70-130	LFB	
	0 O - DICHLOROBENZENE	9.1	10	ug/L	524.2	91	70-130	LFB	
	0 P - DICHLOROBENZENE	9.4	10	ug/L	524.2	94	70-130	LFB	

\*Notation:

% Recovery = (Result of Analysis)/(True Value) \* 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

FORM: QCIndependent4.rpt

14673 -





## SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Reference Number: **24-14739**

Report Date: 07/03/24

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits*	QC Qualifier Type	QC	Comment
<b>Laboratory Fortified Blank</b>										
<b>524_240604</b>	0 STYRENE	9.4	10	ug/L	524.2	94	70-130	LFB		
	0 T - 1,2 - DICHLOROETHYLENE	10.8	10	ug/L	524.2	108	70-130	LFB		
	0 TETRACHLOROETHYLENE	10.8	10	ug/L	524.2	108	70-130	LFB		
	0 TOLUENE	10.9	10	ug/L	524.2	109	70-130	LFB		
	0 TRICHLOROETHYLENE	10.6	10	ug/L	524.2	106	70-130	LFB		
	0 VINYL CHLORIDE	9.0	10	ug/L	524.2	90	70-130	LFB		
<b>525_240531</b>	0 1,3-DIMETHYL-2-NITROBENZENE (Surr)	92		%	525.2		70-130	LFB		
	0 ALACHLOR	2.23	2	ug/L	525.2	112	70-130	LFB		
	0 ATRAZINE	2.31	2	ug/L	525.2	116	70-130	LFB		
	0 BENZO(A)PYRENE	1.11	1	ug/L	525.2	111	70-130	LFB		
	0 DI(2-ETHYLHEXYL)-ADIPATE	1.34	1	ug/L	525.2	134	70-130	HR	LFB	
	0 DI(2-ETHYLHEXYL)-PHthalate	1.39	1	ug/L	525.2	139	70-130	HR	LFB	
	0 ENDRIN	1.26	1	ug/L	525.2	126	70-130	LFB		
	0 HEPTACHLOR	0.87	1	ug/L	525.2	87	70-130	LFB		
	0 HEPTACHLOR EPOXIDE "B"	1.01	1	ug/L	525.2	101	70-130	LFB		
	0 HEXACHLOROBENZENE	1.26	1	ug/L	525.2	126	70-130	LFB		
	0 HEXACHLOROCYCLO-PENTADIENE	1.08	1	ug/L	525.2	108	70-130	LFB		
	0 LINDANE (BHC - GAMMA)	0.91	1	ug/L	525.2	91	70-130	LFB		
	0 METHOXYCHLOR	1.05	1	ug/L	525.2	105	70-130	LFB		
	0 SIMAZINE	1.04	1	ug/L	525.2	104	70-130	LFB		
<b>531_240605</b>	0 CARBOFURAN	21.8	20	ug/L	531.2	109	70-130	LFB		
	0 OXAMYL (VYDATE)	23.4	20	ug/L	531.2	117	70-130	LFB		
<b>547_240530</b>	0 GLYPHOSATE	19.6	20	ug/L	547	98	81-126	LFB		
	1 GLYPHOSATE	35.6	40	ug/L	547	89	81-126	LFB		
	2 GLYPHOSATE	18.2	20	ug/L	547	91	81-126	LFB		
<b>548_240528</b>	0 ENDOTHALL	13.5	20	ug/L	548.1	68	50-121	LFB		
<b>549_240528</b>	0 DIQUAT	17.5	20	ug/L	549.2	88	70-130	LFB		

\*Notation:

% Recovery = (Result of Analysis)/(True Value) \* 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

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## SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Reference Number: **24-14739**

Report Date: 07/03/24

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits*	QC Qualifier	QC Type	Comment
<b>Low-Level Lab Fortified Blank</b>										
<b>504_240605</b>	1 1,2 - DIBROMOETHANE (EDB)	0.009	0.01	ug/L	504.1	90	60-140		LLFB	
	1 1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0.009	0.01	ug/L	504.1	90	60-140		LLFB	
	2 1,2 - DIBROMOETHANE (EDB)	0.009	0.01	ug/L	504.1	90	60-140		LLFB	
	2 1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0.010	0.01	ug/L	504.1	100	60-140		LLFB	
<b>515_240604</b>	0 2,4 - D	0.083	0.1	ug/L	515.4	83	50-150		LLFB	
	0 2,4,5 - TP (SILVEX)	0.101	0.1	ug/L	515.4	101	50-150		LLFB	
	0 DALAPON	0.397	0.5	ug/L	515.4	79	50-150		LLFB	
	0 DINOSEB	0.099	0.1	ug/L	515.4	99	50-150		LLFB	
	0 PENTACHLOROPHENOL	0.098	0.1	ug/L	515.4	98	50-150		LLFB	
	0 PICLORAM	0.071	0.1	ug/L	515.4	71	50-150		LLFB	
	1 PENTACHLOROPHENOL	0.039	0.04	ug/L	515.4	98	50-150		LLFB	
<b>525_240531</b>	0 1,3-DIMETHYL-2-NITROBENZENE (Surr)	97		%	525.2		50-150		LLFB	
	0 ALACHLOR	0.21	0.2	ug/L	525.2	105	50-150		LLFB	
	0 ATRAZINE	0.20	0.2	ug/L	525.2	100	50-150		LLFB	
	0 BENZO(A)PYRENE	0.06	0.1	ug/L	525.2	60	50-150		LLFB	
	0 DI(2-ETHYLHEXYL)-ADIPATE	0.13	0.1	ug/L	525.2	130	50-150		LLFB	
	0 DI(2-ETHYLHEXYL)-PHTHALATE	0.82	0.5	ug/L	525.2	164	50-150	HR	LLFB	
	0 ENDRIN	0.11	0.1	ug/L	525.2	110	50-150		LLFB	
	0 HEPTACHLOR	0.06	0.1	ug/L	525.2	60	50-150		LLFB	
	0 HEPTACHLOR EPOXIDE "B"	0.14	0.1	ug/L	525.2	140	50-150		LLFB	
	0 HEXACHLOROBENZENE	0.13	0.1	ug/L	525.2	130	50-150		LLFB	
	0 HEXACHLOROCYCLO-PENTADIENE	0.12	0.1	ug/L	525.2	120	50-150		LLFB	
	0 LINDANE (BHC - GAMMA)	0.10	0.1	ug/L	525.2	100	50-150		LLFB	
	0 METHOXYCHLOR	0.08	0.1	ug/L	525.2	80	50-150		LLFB	
	0 SIMAZINE	0.09	0.1	ug/L	525.2	90	50-150		LLFB	
<b>531_240605</b>	0 CARBOFURAN	0.54	0.5	ug/L	531.2	108	50-150		LLFB	
	0 OXAMYL (VYDATE)	0.58	0.5	ug/L	531.2	116	50-150		LLFB	
<b>547_240530</b>	0 GLYPHOSATE	6.25	5	ug/L	547	125	50-150		LLFB	
<b>548_240528</b>	0 ENDOTHALL	4.17	5	ug/L	548.1	83	50-150		LLFB	
<b>549_240528</b>	0 DIQUAT	0.45	0.4	ug/L	549.2	113	50-150		LLFB	

\*Notation:

% Recovery = (Result of Analysis)/(True Value) \* 100

NA = Indicates % Recovery could not be calculated.

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## SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Reference Number: **24-14739**

Report Date: 07/03/24

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits*	QC Qualifier	QC Type	Comment
<b>Laboratory Reagent Blank</b>										
1677_240524	0 CYANIDE, AVAILABLE	ND		mg/L	OIA-1677-DW	0-0		LRB		
200.7_240528B4	0 SODIUM	ND		mg/L	200.7	0-0		LRB		
200.8_240524HG	0 MERCURY	ND		mg/L	200.8	0-0		LRB		
200.8_240530A4	0 URANIUM	ND		mg/L	200.8	0-0		LRB		
	0 ANTIMONY	ND		mg/L	200.8	0-0		LRB		
	0 ARSENIC	ND		mg/L	200.8	0-0		LRB		
	0 BARIUM	ND		mg/L	200.8	0-0		LRB		
	0 BERYLLIUM	ND		mg/L	200.8	0-0		LRB		
	0 CADMIUM	ND		mg/L	200.8	0-0		LRB		
	0 CHROMIUM	ND		mg/L	200.8	0-0		LRB		
	0 LEAD	ND		mg/L	200.8	0-0		LRB		
	0 NICKEL	ND		mg/L	200.8	0-0		LRB		
	0 SELENIUM	ND		mg/L	200.8	0-0		LRB		
	0 THALLIUM	ND		mg/L	200.8	0-0		LRB		
ENO3_240524	0 NITRATE-N	ND		mg/L	SM4500-NO3 F	0-0		LRB		
	0 NITRITE-N	ND		mg/L	SM4500-NO3 F	0-0		LRB		
	0 TOTAL NITRATE+NITRITE as N	ND		mg/L	SM4500-NO3 F	0-0		LRB		
IC05_240524A	0 FLUORIDE	ND		mg/L	300.0	0-0		LRB		

\*Notation:

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## SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Reference Number: **24-14739**

Report Date: 07/03/24

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits*	QC Qualifier	QC Type	Comment
<b>Method Blank</b>										
200.7_240528B4	0 SODIUM	ND		mg/L	200.7		0-0		MB	
200.8_240524HG	0 MERCURY	ND		mg/L	200.8		0-0		MB	
200.8_240530A4	0 URANIUM	ND		mg/L	200.8		0-0		MB	
	0 ANTIMONY	ND		mg/L	200.8		0-0		MB	
	0 ARSENIC	ND		mg/L	200.8		0-0		MB	
	0 BARIUM	ND		mg/L	200.8		0-0		MB	
	0 BERYLLIUM	ND		mg/L	200.8		0-0		MB	
	0 CADMIUM	ND		mg/L	200.8		0-0		MB	
	0 CHROMIUM	ND		mg/L	200.8		0-0		MB	
	0 LEAD	ND		mg/L	200.8		0-0		MB	
	0 NICKEL	ND		mg/L	200.8		0-0		MB	
	0 SELENIUM	ND		mg/L	200.8		0-0		MB	
	0 THALLIUM	ND		mg/L	200.8		0-0		MB	
504_240605	0 1,2 - DIBROMOETHANE (EDB)	ND		ug/L	504.1		0-0		MB	
	0 1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	ND		ug/L	504.1		0-0		MB	
	1 1,2 - DIBROMOETHANE (EDB)	ND		ug/L	504.1		0-0		MB	
	1 1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	ND		ug/L	504.1		0-0		MB	
508_240531	0 CHLORDANE	ND		ug/L	508.1		0-0		MB	
	0 TOXAPHENE	ND		ug/L	508.1		0-0		MB	
515_240604	0 2,4 - D	ND		ug/L	515.4		0-0		MB	
	0 2,4,5 - TP (SILVEX)	ND		ug/L	515.4		0-0		MB	
	0 DALAPON	ND		ug/L	515.4		0-0		MB	
	0 DINOSEB	ND		ug/L	515.4		0-0		MB	
	0 PENTACHLOROPHENOL	ND		ug/L	515.4		0-0		MB	
	0 PICLORAM	ND		ug/L	515.4		0-0		MB	
524_240604	0 1,1 - DICHLOROETHYLENE	ND		ug/L	524.2		0-0		MB	
	0 1,1,1 - TRICHLOROETHANE	ND		ug/L	524.2		0-0		MB	
	0 1,1,2 - TRICHLOROETHANE	ND		ug/L	524.2		0-0		MB	
	0 1,2 - DICHLOROETHANE	ND		ug/L	524.2		0-0		MB	
	0 1,2 - DICHLOROPROPANE	ND		ug/L	524.2		0-0		MB	
	0 1,2,4 - TRICHLOROBENZENE	ND		ug/L	524.2		0-0		MB	
	0 BENZENE	ND		ug/L	524.2		0-0		MB	
	0 CARBON TETRACHLORIDE	ND		ug/L	524.2		0-0		MB	
	0 CHLOROBENZENE	ND		ug/L	524.2		0-0		MB	
	0 CIS - 1,2 - DICHLOROETHYLENE	ND		ug/L	524.2		0-0		MB	
	0 ETHYLBENZENE	ND		ug/L	524.2		0-0		MB	
	0 METHYLENE CHLORIDE (Dichloromethane)	ND		ug/L	524.2		0-1		MB	
	0 O - DICHLOROBENZENE	ND		ug/L	524.2		0-0		MB	
	0 P - DICHLOROBENZENE	ND		ug/L	524.2		0-0		MB	
	0 STYRENE	ND		ug/L	524.2		0-0		MB	
	0 T - 1,2 - DICHLOROETHYLENE	ND		ug/L	524.2		0-0		MB	

\*Notation:

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NA = Indicates % Recovery could not be calculated.

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## SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Reference Number: **24-14739**

Report Date: 07/03/24

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits*	QC Qualifier	QC Type	Comment
<b>Method Blank</b>										
524_240604	0 TETRACHLOROETHYLENE	ND		ug/L	524.2		0-0		MB	
	0 TOLUENE	ND		ug/L	524.2		0-0		MB	
	0 TRICHLOROETHYLENE	ND		ug/L	524.2		0-0		MB	
	0 VINYL CHLORIDE	ND		ug/L	524.2		0-0		MB	
	1 1,1 - DICHLOROETHYLENE	ND		ug/L	524.2		0-0		MB	TB 24-14793
	1 1,1,1 - TRICHLOROETHANE	ND		ug/L	524.2		0-0		MB	TB 24-14793
	1 1,1,2 - TRICHLOROETHANE	ND		ug/L	524.2		0-0		MB	TB 24-14793
	1 1,2 - DICHLOROETHANE	ND		ug/L	524.2		0-0		MB	TB 24-14793
	1 1,2 - DICHLOROPROPANE	ND		ug/L	524.2		0-0		MB	TB 24-14793
	1 1,2,4 - TRICHLOROBENZENE	ND		ug/L	524.2		0-0		MB	TB 24-14793
	1 BENZENE	ND		ug/L	524.2		0-0		MB	TB 24-14793
	1 CARBON TETRACHLORIDE	ND		ug/L	524.2		0-0		MB	TB 24-14793
	1 CHLOROBENZENE	ND		ug/L	524.2		0-0		MB	TB 24-14793
	1 CIS - 1,2 - DICHLOROETHYLENE	ND		ug/L	524.2		0-0		MB	TB 24-14793
	1 ETHYLBENZENE	ND		ug/L	524.2		0-0		MB	TB 24-14793
	1 METHYLENE CHLORIDE (Dichloromethane)	ND		ug/L	524.2		0-1		MB	TB 24-14793
	1 O - DICHLOROBENZENE	ND		ug/L	524.2		0-0		MB	TB 24-14793
	1 P - DICHLOROBENZENE	ND		ug/L	524.2		0-0		MB	TB 24-14793
	1 STYRENE	ND		ug/L	524.2		0-0		MB	TB 24-14793
	1 T - 1,2 - DICHLOROETHYLENE	ND		ug/L	524.2		0-0		MB	TB 24-14793
	1 TETRACHLOROETHYLENE	ND		ug/L	524.2		0-0		MB	TB 24-14793
	1 TOLUENE	ND		ug/L	524.2		0-0		MB	TB 24-14793
	1 TRICHLOROETHYLENE	ND		ug/L	524.2		0-0		MB	TB 24-14793
	1 VINYL CHLORIDE	ND		ug/L	524.2		0-0		MB	TB 24-14793
	2 1,1 - DICHLOROETHYLENE	ND		ug/L	524.2		0-0		MB	TB 24-14794
	2 1,1,1 - TRICHLOROETHANE	ND		ug/L	524.2		0-0		MB	TB 24-14794
	2 1,1,2 - TRICHLOROETHANE	ND		ug/L	524.2		0-0		MB	TB 24-14794
	2 1,2 - DICHLOROETHANE	ND		ug/L	524.2		0-0		MB	TB 24-14794
	2 1,2 - DICHLOROPROPANE	ND		ug/L	524.2		0-0		MB	TB 24-14794
	2 1,2,4 - TRICHLOROBENZENE	ND		ug/L	524.2		0-0		MB	TB 24-14794
	2 BENZENE	ND		ug/L	524.2		0-0		MB	TB 24-14794
	2 CARBON TETRACHLORIDE	ND		ug/L	524.2		0-0		MB	TB 24-14794
	2 CHLOROBENZENE	ND		ug/L	524.2		0-0		MB	TB 24-14794
	2 CIS - 1,2 - DICHLOROETHYLENE	ND		ug/L	524.2		0-0		MB	TB 24-14794
	2 ETHYLBENZENE	ND		ug/L	524.2		0-0		MB	TB 24-14794
	2 METHYLENE CHLORIDE (Dichloromethane)	ND		ug/L	524.2		0-1		MB	TB 24-14794
	2 O - DICHLOROBENZENE	ND		ug/L	524.2		0-0		MB	TB 24-14794
	2 P - DICHLOROBENZENE	ND		ug/L	524.2		0-0		MB	TB 24-14794
	2 STYRENE	ND		ug/L	524.2		0-0		MB	TB 24-14794
	2 T - 1,2 - DICHLOROETHYLENE	ND		ug/L	524.2		0-0		MB	TB 24-14794
	2 TETRACHLOROETHYLENE	ND		ug/L	524.2		0-0		MB	TB 24-14794
	2 TOLUENE	ND		ug/L	524.2		0-0		MB	TB 24-14794
	2 TRICHLOROETHYLENE	ND		ug/L	524.2		0-0		MB	TB 24-14794

\*Notation:

% Recovery = (Result of Analysis)/(True Value) \* 100

NA = Indicates % Recovery could not be calculated.

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FORM: QCIndependent4.rpt

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## SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Reference Number: **24-14739**

Report Date: 07/03/24

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits*	QC Qualifier Type	QC	Comment
<b>Method Blank</b>										
524_240604	2 VINYL CHLORIDE	ND		ug/L	524.2		0-0	MB		TB 24-14794
525_240531	0 1,3-DIMETHYL-2-NITROBENZENE (Surr)	96		%	525.2		70-130	MB		
	0 ALACHLOR	ND		ug/L	525.2		0-0	MB		
	0 ATRAZINE	ND		ug/L	525.2		0-0	MB		
	0 BENZO(A)PYRENE	ND		ug/L	525.2		0-0	MB		
	0 DI(2-ETHYLHEXYL)-ADIPATE	ND		ug/L	525.2		0-0	MB		
	0 DI(2-ETHYLHEXYL)-PHTHALATE	ND		ug/L	525.2		0-0	MB		
	0 ENDRIN	ND		ug/L	525.2		0-0	MB		
	0 HEPTACHLOR	ND		ug/L	525.2		0-0	MB		
	0 HEPTACHLOR EPOXIDE "B"	ND		ug/L	525.2		0-0	MB		
	0 HEXACHLOROBENZENE	ND		ug/L	525.2		0-0	MB		
	0 HEXACHLOROCYCLO-PENTADIENE	ND		ug/L	525.2		0-0	MB		
	0 LINDANE (BHC - GAMMA)	ND		ug/L	525.2		0-0	MB		
	0 METHOXYCHLOR	ND		ug/L	525.2		0-0	MB		
	0 SIMAZINE	ND		ug/L	525.2		0-0	MB		
531_240605	0 CARBOFURAN	ND		ug/L	531.2		0-0	MB		
	0 OXAMYL (VYDATE)	ND		ug/L	531.2		0-0	MB		
547_240530	0 GLYPHOSATE	ND		ug/L	547		0-0	MB		
548_240528	0 ENDOTHALL	ND		ug/L	548.1		0-0	MB		
549_240528	0 DIQUAT	ND		ug/L	549.2		0-0	MB		
ENO3_240524	0 NITRATE-N	ND		mg/L	SM4500-NO3 F		0-0	MB		
	0 NITRITE-N	ND		mg/L	SM4500-NO3 F		0-0	MB		
	0 TOTAL NITRATE+NITRITE as N	ND		mg/L	SM4500-NO3 F		0-0	MB		

\*Notation:

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## SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Reference Number: **24-14739**

Report Date: 07/03/24

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits*	QC Qualifier Type	QC	Comment
<b>Method Detection Limit Sample</b>										
524_240604	0 1,1 - DICHLOROETHYLENE	0.25	0.4	ug/L	524.2	63	25-175	MDL		
	0 1,1,1 - TRICHLOROETHANE	0.24	0.4	ug/L	524.2	60	25-175	MDL		
	0 1,1,2 - TRICHLOROETHANE	0.43	0.4	ug/L	524.2	108	25-175	MDL		
	0 1,2 - DICHLOROETHANE	0.43	0.4	ug/L	524.2	108	25-175	MDL		
	0 1,2 - DICHLOROPROPANE	0.34	0.4	ug/L	524.2	85	25-175	MDL		
	0 1,2,4 - TRICHLOROBENZENE	0.22	0.4	ug/L	524.2	55	25-175	MDL		
	0 BENZENE	0.37	0.4	ug/L	524.2	93	25-175	MDL		
	0 CARBON TETRACHLORIDE	0.38	0.4	ug/L	524.2	95	25-175	MDL		
	0 CHLOROBENZENE	0.38	0.4	ug/L	524.2	95	25-175	MDL		
	0 CIS - 1,2 - DICHLOROETHYLENE	0.38	0.4	ug/L	524.2	95	25-175	MDL		
	0 ETHYLBENZENE	0.28	0.4	ug/L	524.2	70	25-175	MDL		
	0 METHYLENE CHLORIDE (Dichloromethane)	0.50	0.4	ug/L	524.2	125	25-175	MDL		
	0 O - DICHLOROBENZENE	0.36	0.4	ug/L	524.2	90	25-175	MDL		
	0 P - DICHLOROBENZENE	0.36	0.4	ug/L	524.2	90	25-175	MDL		
	0 STYRENE	0.34	0.4	ug/L	524.2	85	25-175	MDL		
	0 T - 1,2 - DICHLOROETHYLENE	0.31	0.4	ug/L	524.2	78	25-175	MDL		
	0 TETRACHLOROETHYLENE	0.24	0.4	ug/L	524.2	60	25-175	MDL		
	0 TOLUENE	0.38	0.4	ug/L	524.2	95	25-175	MDL		
	0 TRICHLOROETHYLENE	0.30	0.4	ug/L	524.2	75	25-175	MDL		
	0 VINYL CHLORIDE	0.23	0.4	ug/L	524.2	58	25-175	MDL		
<b>Quality Control Sample</b>										
1677_240524	0 CYANIDE, AVAILABLE	0.094	0.100	mg/L	OIA-1677-DW	94	90-110	QCS		
200.7_240528B4	1 SODIUM	19.2	20	mg/L	200.7	96	95-105	QCS		
200.8_240524HG	0 MERCURY	0.0012	0.00127	mg/L	200.8	94	90-110	QCS		
200.8_240530A4	0 URANIUM	0.055	0.0519	mg/L	200.8	106	90-110	QCS		
	0 ANTIMONY	0.0385	0.04	mg/L	200.8	96	90-110	QCS		
	0 ARSENIC	0.0389	0.04	mg/L	200.8	97	90-110	QCS		
	0 BARIUM	0.0402	0.04	mg/L	200.8	101	90-110	QCS		
	0 BERYLLIUM	0.0412	0.04	mg/L	200.8	103	90-110	QCS		
	0 CADMIUM	0.0403	0.04	mg/L	200.8	101	90-110	QCS		
	0 CHROMIUM	0.041	0.04	mg/L	200.8	103	90-110	QCS		
	0 LEAD	0.0412	0.04	mg/L	200.8	103	90-110	QCS		
	0 NICKEL	0.0424	0.04	mg/L	200.8	106	90-110	QCS		
	0 SELENIUM	0.0393	0.04	mg/L	200.8	98	90-110	QCS		
	0 THALLIUM	0.0401	0.04	mg/L	200.8	100	90-110	QCS		
504_240605	0 1,2 - DIBROMOETHANE (EDB)	0.85	1.04	ug/L	504.1	82	70-130	QCS		
	0 1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0.94	1.17	ug/L	504.1	80	70-130	QCS		
ENO3_240524	0 NITRATE-N	1.05	1.00	mg/L	SM4500-NO3 F	105	90-110	QCS		
	0 NITRITE-N	0.52	0.50	mg/L	SM4500-NO3 F	104	90-110	QCS		
	0 TOTAL NITRATE+NITRITE as N	1.05	1.00	mg/L	SM4500-NO3 F	105	90-110	QCS		
IC05_240524A	0 FLUORIDE	4.05	4	mg/L	300.0	101	90-110	QCS		

\*Notation:

% Recovery = (Result of Analysis)/(True Value) \* 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

FORM: QCIndependent4.rpt

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## SAMPLE DEPENDENT QUALITY CONTROL REPORT

### Duplicate, Matrix Spike/Matrix Spike Duplicate and Confirmation Result Report

Reference Number: **24-14739**

Report Date: 7/3/2024

## Duplicate

Batch/CAS	Sample	Analyte	Result	Duplicate Result	Units	%RPD	Limits	QC Qualifier	Comments
<b>1677_240524</b>									
57-12-5	23654	CYANIDE, AVAILABLE	ND	ND	mg/L	NA	0-20		
57-12-5	26880	CYANIDE, AVAILABLE	ND	ND	mg/L	NA	0-20		
57-12-5	27511	CYANIDE, AVAILABLE	ND	ND	mg/L	NA	0-20		
57-12-5	28100	CYANIDE, AVAILABLE	ND	ND	mg/L	NA	0-20		
<b>200.7_240528B4</b>									
7440-23-5	25199	SODIUM	15.4	15.6	mg/L	1.3	0-20		
7440-23-5	26881	SODIUM	3.7	3.6	mg/L	2.7	0-20		
7440-23-5	27166	SODIUM	8.9	8.8	mg/L	1.1	0-20		
7440-23-5	27201	SODIUM	36.0	35.8	mg/L	0.6	0-20		
7440-23-5	27532	SODIUM	51.4	51.6	mg/L	0.4	0-20		
7440-23-5	27660	SODIUM	5.2	5.2	mg/L	0.0	0-20		
7440-23-5	27930	SODIUM	63.1	62.2	mg/L	1.4	0-20		
<b>200.8_240530A4</b>									
7440-36-0	26936	ANTIMONY	ND	ND	mg/L	NA	0-20		
7440-38-2	26936	ARSENIC	ND	ND	mg/L	NA	0-20		
7440-39-3	26936	BARIUM	0.0032	0.0032	mg/L	0.0	0-20		
7440-41-7	26936	BERYLLIUM	ND	ND	mg/L	NA	0-20		
7440-43-9	26936	CADMIUM	ND	ND	mg/L	NA	0-20		
7440-47-3	26936	CHROMIUM	ND	ND	mg/L	NA	0-20		
7439-92-1	26936	LEAD	ND	ND	mg/L	NA	0-20		
7440-02-0	26936	NICKEL	ND	ND	mg/L	NA	0-20		
7782-49-2	26936	SELENIUM	ND	ND	mg/L	NA	0-20		
7440-28-0	26936	THALLIUM	ND	ND	mg/L	NA	0-20		
7440-61-1	26936	URANIUM	ND	ND	mg/L	NA	0-20		
7440-38-2	27644	ARSENIC	0.0037	0.0037	mg/L	0.0	0-20		
7440-39-3	27644	BARIUM	0.0648	0.0655	mg/L	1.1	0-20		
7440-43-9	27644	CADMIUM	ND	ND	mg/L	NA	0-20		
7440-47-3	27644	CHROMIUM	ND	ND	mg/L	NA	0-20		
7439-92-1	27644	LEAD	ND	ND	mg/L	NA	0-20		
7782-49-2	27644	SELENIUM	ND	ND	mg/L	NA	0-20		
7440-38-2	27793	ARSENIC	0.0146	0.0146	mg/L	0.0	0-20		
7440-39-3	27793	BARIUM	0.0364	0.0366	mg/L	0.5	0-20		
7440-43-9	27793	CADMIUM	ND	ND	mg/L	NA	0-20		
7440-47-3	27793	CHROMIUM	ND	ND	mg/L	NA	0-20		
7439-92-1	27793	LEAD	ND	ND	mg/L	NA	0-20		
7782-49-2	27793	SELENIUM	ND	ND	mg/L	NA	0-20		
7440-38-2	27875	ARSENIC	0.0032	0.0033	mg/L	3.1	0-20		
7439-92-1	27875	LEAD	ND	ND	mg/L	NA	0-20		
7439-92-1	27893	LEAD	ND	ND	mg/L	NA	0-20		
7440-38-2	27932	ARSENIC	0.0057	0.0057	mg/L	0.0	0-20		
7440-39-3	27932	BARIUM	0.0168	0.0167	mg/L	0.6	0-20		
7440-43-9	27932	CADMIUM	ND	ND	mg/L	NA	0-20		
7440-47-3	27932	CHROMIUM	ND	ND	mg/L	NA	0-20		
7439-92-1	27932	LEAD	ND	ND	mg/L	NA	0-20		
7782-49-2	27932	SELENIUM	ND	ND	mg/L	NA	0-20		
7439-92-1	27971	LEAD	ND	ND	ppb	NA	0-20		

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of an analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

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FORM: QC Dependent\_Port.rpt

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## SAMPLE DEPENDENT QUALITY CONTROL REPORT

### Duplicate, Matrix Spike/Matrix Spike Duplicate and Confirmation Result Report

Reference Number: **24-14739**

Report Date: 7/3/2024

## Duplicate

Batch/CAS	Sample	Analyte	Result	Duplicate Result	Units	%RPD	Limits	QC Qualifier	Comments
7439-92-1	27981	LEAD	ND	ND	ppb	NA	0-20		
7439-92-1	27991	LEAD	ND	ND	ppb	NA	0-20		
7439-92-1	28001	LEAD	ND	ND	ppb	NA	0-20		
7439-92-1	28011	LEAD	ND	ND	ppb	NA	0-20		
7439-92-1	28021	LEAD	ND	ND	ppb	NA	0-20		
7439-92-1	28031	LEAD	ND	ND	ppb	NA	0-20		
7439-92-1	28041	LEAD	ND	ND	ppb	NA	0-20		
7439-92-1	28051	LEAD	ND	ND	ppb	NA	0-20		
7439-92-1	28061	LEAD	ND	ND	ppb	NA	0-20		
7439-92-1	28071	LEAD	ND	ND	ppb	NA	0-20		
7439-92-1	28081	LEAD	ND	ND	ppb	NA	0-20		
7439-92-1	28091	LEAD	ND	ND	ppb	NA	0-20		
<b>524_240604</b>									
75-35-4	27910	1,1 - DICHLOROETHYLENE	ND	ND	mg/L	NA	0-30		
71-55-6	27910	1,1,1 - TRICHLOROETHANE	ND	ND	mg/L	NA	0-30		
79-00-5	27910	1,1,2 - TRICHLOROETHANE	ND	ND	mg/L	NA	0-30		
107-06-2	27910	1,2 - DICHLOROETHANE	ND	ND	mg/L	NA	0-30		
78-87-5	27910	1,2 - DICHLOROPROPANE	ND	ND	mg/L	NA	0-30		
120-82-1	27910	1,2,4 - TRICHLOROBENZENE	ND	ND	mg/L	NA	0-30		
71-43-2	27910	BENZENE	ND	ND	mg/L	NA	0-30		
56-23-5	27910	CARBON TETRACHLORIDE	ND	ND	mg/L	NA	0-30		
108-90-7	27910	CHLOROBENZENE	ND	ND	mg/L	NA	0-30		
156-59-2	27910	CIS - 1,2 - DICHLOROETHYLENE	ND	ND	mg/L	NA	0-30		
100-41-4	27910	ETHYLBENZENE	ND	ND	mg/L	NA	0-30		
75-09-2	27910	METHYLENE CHLORIDE (Dichloromethane)	ND	ND	mg/L	NA	0-30		
95-50-1	27910	O - DICHLOROBENZENE	ND	ND	mg/L	NA	0-30		
106-46-7	27910	P - DICHLOROBENZENE	ND	ND	mg/L	NA	0-30		
100-42-5	27910	STYRENE	ND	ND	mg/L	NA	0-30		
156-60-5	27910	T - 1,2 - DICHLOROETHYLENE	0.0007	0.0007	mg/L	0.0	0-30		
127-18-4	27910	TETRACHLOROETHYLENE	ND	ND	mg/L	NA	0-30		
108-88-3	27910	TOLUENE	ND	ND	mg/L	NA	0-30		
1330-20-7	27910	TOTAL XYLENES	ND	ND	mg/L	NA	0-30		
79-01-6	27910	TRICHLOROETHYLENE	ND	ND	mg/L	NA	0-30		
75-01-4	27910	VINYL CHLORIDE	ND	ND	mg/L	NA	0-30		
75-35-4	27912	1,1 - DICHLOROETHYLENE	ND	ND	mg/L	NA	0-30		PH
71-55-6	27912	1,1,1 - TRICHLOROETHANE	ND	ND	mg/L	NA	0-30		
79-00-5	27912	1,1,2 - TRICHLOROETHANE	ND	ND	mg/L	NA	0-30		
107-06-2	27912	1,2 - DICHLOROETHANE	ND	ND	mg/L	NA	0-30		
78-87-5	27912	1,2 - DICHLOROPROPANE	ND	ND	mg/L	NA	0-30		
120-82-1	27912	1,2,4 - TRICHLOROBENZENE	ND	ND	mg/L	NA	0-30		
71-43-2	27912	BENZENE	ND	ND	mg/L	NA	0-30		
56-23-5	27912	CARBON TETRACHLORIDE	ND	ND	mg/L	NA	0-30		
108-90-7	27912	CHLOROBENZENE	ND	ND	mg/L	NA	0-30		
156-59-2	27912	CIS - 1,2 - DICHLOROETHYLENE	ND	ND	mg/L	NA	0-30		
100-41-4	27912	ETHYLBENZENE	ND	ND	mg/L	NA	0-30		
75-09-2	27912	METHYLENE CHLORIDE (Dichloromethane)	ND	ND	mg/L	NA	0-30		
95-50-1	27912	O - DICHLOROBENZENE	ND	ND	mg/L	NA	0-30		

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of an analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

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ANALYTICAL



# SAMPLE DEPENDENT QUALITY CONTROL REPORT

## Duplicate, Matrix Spike/Matrix Spike Duplicate and Confirmation Result Report

Reference Number: **24-14739**

Report Date: 7/3/2024

### Duplicate

Batch/CAS	Sample	Analyte	Result	Duplicate Result	Units	%RPD	Limits	QC Qualifier	Comments
106-46-7	27912	P - DICHLOROBENZENE	ND	ND	mg/L	NA	0-30		
100-42-5	27912	STYRENE	ND	ND	mg/L	NA	0-30		
156-60-5	27912	T - 1,2 - DICHLOROETHYLENE	ND	ND	mg/L	NA	0-30		
127-18-4	27912	TETRACHLOROETHYLENE	ND	ND	mg/L	NA	0-30		
108-88-3	27912	TOLUENE	0.0004	JJ 0.0004 JJ	mg/L	0.0	0-30		
1330-20-7	27912	TOTAL XYLENES	ND	ND	mg/L	NA	0-30		
79-01-6	27912	TRICHLOROETHYLENE	ND	ND	mg/L	NA	0-30		
75-01-4	27912	VINYL CHLORIDE	ND	ND	mg/L	NA	0-30		
<b>525_240531</b>									
81-20-9	27914	1,3-DIMETHYL-2-NITROBENZENE (Surr)	96	85	%	12.2	0-30		Extracted 6/21/24
198-55-0	27914	PERYLENE-D12 (Surr)*	86	81	%	6.0	0-30		Extracted 6/21/24
129-00-0	27914	PYRENE-D10 (Surr)	88	106	%	18.6	0-30		Extracted 6/21/24
115-86-6	27914	TRIPHENYLPHOSPHATE (Surr)	106	109	%	2.8	0-30		Extracted 6/21/24
15972-60-8	27914	ALACHLOR	ND	ND	mg/L	NA	0-30		Extracted 6/21/24
1912-24-9	27914	ATRAZINE	ND	ND	mg/L	NA	0-30		Extracted 6/21/24
50-32-8	27914	BENZO(A)PYRENE	ND	ND	mg/L	NA	0-30		Extracted 6/21/24
103-23-1	27914	DI(2-ETHYLHEXYL)-ADIPATE	ND	ND	mg/L	NA	0-30		Extracted 6/21/24
117-81-7	27914	DI(2-ETHYLHEXYL)-PHTHALATE	0.00233	0.00209	mg/L	10.9	0-30		Extracted 6/21/24
72-20-8	27914	ENDRIN	ND	ND	mg/L	NA	0-30		Extracted 6/21/24
76-44-8	27914	HEPTACHLOR	ND	ND	mg/L	NA	0-30		Extracted 6/21/24
1024-57-3	27914	HEPTACHLOR EPOXIDE "B"	ND	ND	mg/L	NA	0-30		Extracted 6/21/24
118-74-1	27914	HEXACHLOROBENZENE	ND	ND	mg/L	NA	0-30		Extracted 6/21/24
77-47-4	27914	HEXACHLOROCYCLO-PENTADIENE	ND	ND	mg/L	NA	0-30		Extracted 6/21/24
58-89-9	27914	LINDANE (BHC - GAMMA)	ND	ND	mg/L	NA	0-30		Extracted 6/21/24
72-43-5	27914	METHOXYCHLOR	ND	ND	mg/L	NA	0-30		Extracted 6/21/24
122-34-9	27914	SIMAZINE	ND	ND	mg/L	NA	0-30		Extracted 6/21/24
<b>ENO3_240524</b>									
14797-55-8	27892	NITRATE-N	0.50	0.51	mg/L	2.0	0-20		
<b>IC05_240524A</b>									
16984-48-8	27443	FLUORIDE	ND	ND	mg/L	NA	0-20		
16984-48-8	28210	FLUORIDE	0.11	0.13	mg/L	16.7	0-20	IM	

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NA = Indicates %RPD could not be calculated

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Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

FORM: QC Dependent\_Port.rpt

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## SAMPLE DEPENDENT QUALITY CONTROL REPORT

### Duplicate, Matrix Spike/Matrix Spike Duplicate and Confirmation Result Report

Reference Number: **24-14739**

Report Date: 7/3/2024

### Laboratory Fortified Matrix (MS)

Batch/CAS	Sample	Analyte	Result	Spike Result	Duplicate Spike Result	Conc	Units	Percent Recovery			%RPD	Limits*	QC	
								MS	MSD	Limits*			Qualifier	Comments
1677_240524														
57-12-5	23654	CYANIDE, AVAILABLE	ND	0.045	0.048	0.050	mg/L	90	96	70-130	6.5	0-20		
57-12-5	26880	CYANIDE, AVAILABLE	ND	0.047	0.050	0.050	mg/L	94	100	70-130	6.2	0-20		
57-12-5	27511	CYANIDE, AVAILABLE	ND	0.044	0.046	0.050	mg/L	88	92	70-130	4.4	0-20		
57-12-5	28100	CYANIDE, AVAILABLE	ND	0.051	0.054	0.050	mg/L	102	108	70-130	5.7	0-20		
200.7_240528B4														
7440-23-5	25199	SODIUM	15.4	26.3	26.8	13.0	mg/L	84	88	70-130	4.5	0-20		
7440-23-5	26881	SODIUM	3.7	15.5	15.6	13.0	mg/L	91	92	70-130	0.8	0-20		
7440-23-5	27166	SODIUM	8.9	20.3	20.6	13.0	mg/L	88	90	70-130	2.6	0-20		
7440-23-5	27201	SODIUM	36.0	46.0	47.1	13.0	mg/L	77	85	70-130	10.4	0-20		
7440-23-5	27532	SODIUM	51.4	62.4	62.0	13.0	mg/L	85	82	70-130	3.7	0-20		
7440-23-5	27660	SODIUM	5.2	17.8	17.6	13.0	mg/L	97	95	70-130	1.6	0-20		
7440-23-5	27930	SODIUM	63.1	74.5	73.6	13.0	mg/L	88	81	70-130	8.2	0-20		
200.8_240524HG5														
7439-97-6	27166	MERCURY	ND	0.00050	0.00049	0.0005	mg/L	100	98	70-130	2.0	0-0		
7439-97-6	27188	MERCURY	ND	0.00050	0.00050	0.0005	mg/L	100	100	70-130	0.0	0-0		
7439-97-6	27554	MERCURY	ND	0.00050	0.00050	0.0005	mg/L	100	100	70-130	0.0	0-0		
7439-97-6	27793	MERCURY	ND	0.00048	0.00049	0.0005	mg/L	96	98	70-130	2.1	0-0		
200.8_240530A4														
7440-36-0	26936	ANTIMONY	ND	0.0105		0.010	mg/L	105		70-130	NA	0-20		
7440-38-2	26936	ARSENIC	ND	0.0104		0.010	mg/L	104		70-130	NA	0-20		
7440-39-3	26936	BARIUM	0.0032	0.0136		0.010	mg/L	104		70-130	NA	0-20		
7440-41-7	26936	BERYLLIUM	ND	0.0105		0.010	mg/L	105		70-130	NA	0-20		
7440-43-9	26936	CADMIUM	ND	0.0108		0.010	mg/L	108		70-130	NA	0-20		
7440-47-3	26936	CHROMIUM	ND	0.0107		0.010	mg/L	107		70-130	NA	0-20		
7439-92-1	26936	LEAD	ND	0.0101		0.010	mg/L	101		70-130	NA	0-20		
7440-02-0	26936	NICKEL	ND	0.0112		0.010	mg/L	112		70-130	NA	0-20		
7782-49-2	26936	SELENIUM	ND	0.0106		0.010	mg/L	106		70-130	NA	0-20		
7440-28-0	26936	THALLIUM	ND	0.0105		0.010	mg/L	105		70-130	NA	0-20		
7440-61-1	26936	URANIUM	ND	0.0106		0.010	mg/L	106		70-130	NA	0-20		
7440-38-2	27644	ARSENIC	0.0037	0.0142		0.010	mg/L	105		70-130	NA	0-20		
7440-39-3	27644	BARIUM	0.0648	0.0745		0.010	mg/L	97		70-130	NA	0-20		
7440-43-9	27644	CADMIUM	ND	0.0103		0.010	mg/L	103		70-130	NA	0-20		
7440-47-3	27644	CHROMIUM	ND	0.0102		0.010	mg/L	102		70-130	NA	0-20		
7439-92-1	27644	LEAD	ND	0.0097		0.010	mg/L	97		70-130	NA	0-20		
7782-49-2	27644	SELENIUM	ND	0.0104		0.010	mg/L	104		70-130	NA	0-20		
7440-38-2	27793	ARSENIC	0.0146	0.0245		0.010	mg/L	99		70-130	NA	0-20		
7440-39-3	27793	BARIUM	0.0364	0.0465		0.010	mg/L	101		70-130	NA	0-20		
7440-43-9	27793	CADMIUM	ND	0.0100		0.010	mg/L	100		70-130	NA	0-20		
7440-47-3	27793	CHROMIUM	ND	0.0097		0.010	mg/L	97		70-130	NA	0-20		
7439-92-1	27793	LEAD	ND	0.0097		0.010	mg/L	97		70-130	NA	0-20		
7782-49-2	27793	SELENIUM	ND	0.0098		0.010	mg/L	98		70-130	NA	0-20		
7440-38-2	27875	ARSENIC	0.0032	0.0140		0.010	mg/L	108		70-130	NA	0-20		
7439-92-1	27875	LEAD	ND	0.0103		0.010	mg/L	103		70-130	NA	0-20		
7439-92-1	27893	LEAD	ND	0.0102		0.010	mg/L	102		70-130	NA	0-20		
7440-38-2	27932	ARSENIC	0.0057	0.0162		0.010	mg/L	105		70-130	NA	0-20		

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NA = Indicates %RPD could not be calculated

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FORM: QC Dependent\_Port.rpt

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## SAMPLE DEPENDENT QUALITY CONTROL REPORT

Duplicate, Matrix Spike/Matrix Spike Duplicate  
and Confirmation Result Report

Reference Number: **24-14739**

Report Date: 7/3/2024

### Laboratory Fortified Matrix (MS)

Batch/CAS	Sample	Analyte	Result	Spike Result	Duplicate Spike Result	Conc	Units	Percent Recovery		Limits*	%RPD	Limits*	Qualifier	Comments
								MS	MSD					
7440-39-3	27932	BARIUM	0.0168	0.0265		0.010	mg/L	97		70-130	NA	0-20		
7440-43-9	27932	CADMIUM	ND	0.0102		0.010	mg/L	102		70-130	NA	0-20		
7440-47-3	27932	CHROMIUM	ND	0.0108		0.010	mg/L	108		70-130	NA	0-20		
7439-92-1	27932	LEAD	ND	0.0098		0.010	mg/L	98		70-130	NA	0-20		
7782-49-2	27932	SELENIUM	ND	0.0106		0.010	mg/L	106		70-130	NA	0-20		
7439-92-1	27971	LEAD	ND	10.6		10.0	ppb	106		70-130	NA	0-20		
7439-92-1	27981	LEAD	ND	10.6		10.0	ppb	106		70-130	NA	0-20		
7439-92-1	27991	LEAD	ND	10.8		10.0	ppb	108		70-130	NA	0-20		
7439-92-1	28001	LEAD	ND	11.0		10.0	ppb	110		70-130	NA	0-20		
7439-92-1	28011	LEAD	ND	10.7		10.0	ppb	107		70-130	NA	0-20		
7439-92-1	28021	LEAD	ND	11.0		10.0	ppb	110		70-130	NA	0-20		
7439-92-1	28031	LEAD	ND	10.7		10.0	ppb	107		70-130	NA	0-20		
7439-92-1	28041	LEAD	ND	10.8		10.0	ppb	108		70-130	NA	0-20		
7439-92-1	28051	LEAD	ND	10.7		10.0	ppb	107		70-130	NA	0-20		
7439-92-1	28061	LEAD	ND	11.6		10.0	ppb	116		70-130	NA	0-20		
7439-92-1	28071	LEAD	ND	11.4		10.0	ppb	114		70-130	NA	0-20		
7439-92-1	28081	LEAD	ND	10.8		10.0	ppb	108		70-130	NA	0-20		
7439-92-1	28091	LEAD	ND	10.7		10.0	ppb	107		70-130	NA	0-20		
<b>504_240605</b>														
106-93-4	27786	1,2 - DIBROMOETHANE (EDB)	ND	0.00025		0.00025	mg/L	100	NA	65-135	NA	0-20		
96-12-8	27786	1,2-DIBROMO-3-CHLOROPROPA NE (DBCP)	ND	0.00028		0.00025	mg/L	112	NA	65-135	NA	0-20		
<b>515_240604</b>														
94-75-7	27950	2,4 - D	ND	2.81	2.84	2.5	ug/L	112	114	70-130	1.1	0-20		
93-72-1	27950	2,4,5 - TP (SILVEX)	ND	2.90	2.91	2.5	ug/L	116	116	70-130	0.3	0-20		
75-99-0	27950	DALAPON	ND	2.42	2.51	2.5	ug/L	97	100	70-130	3.7	0-20		
88-85-7	27950	DINOSEB	ND	2.60	2.83	2.5	ug/L	104	113	70-130	8.5	0-20		
87-86-5	27950	PENTACHLOROPHENOL	ND	2.95	2.97	2.5	ug/L	118	119	70-130	0.7	0-20		
1918-02-1	27950	PICLORAM	ND	2.56	2.58	2.5	ug/L	102	103	70-130	0.8	0-20		
<b>525_240531</b>														
81-20-9	27512	1,3-DIMETHYL-2-NITROBENZEN E (Surr)	98	97			%		NA	70-130	NA	0-20		
15972-60-8	27512	ALACHLOR	ND	2.42		2	ug/L	121	NA	70-130	NA	0-20		
1912-24-9	27512	ATRAZINE	ND	2.54		2	ug/L	127	NA	70-130	NA	0-20		
50-32-8	27512	BENZO(A)PYRENE	ND	1.20		1	ug/L	120	NA	70-130	NA	0-20		
103-23-1	27512	DI(2-ETHYLHEXYL)-ADIPATE	ND	1.57		1	ug/L	157	NA	70-130	NA	0-20	HR	
117-81-7	27512	DI(2-ETHYLHEXYL)-PHthalate	ND	1.64		1	ug/L	164	NA	70-130	NA	0-20	HR	
72-20-8	27512	ENDRIN	ND	1.47		1	ug/L	147	NA	70-130	NA	0-20	M1	
76-44-8	27512	HEPTACHLOR	ND	1.09		1	ug/L	109	NA	70-130	NA	0-20		
1024-57-3	27512	HEPTACHLOR EPOXIDE "B"	ND	1.07		1	ug/L	107	NA	70-130	NA	0-20		
118-74-1	27512	HEXACHLOROBENZENE	ND	1.20		1	ug/L	120	NA	70-130	NA	0-20		
77-47-4	27512	HEXACHLOROCYCLO-PENTADIE NE	ND	1.26		1	ug/L	126	NA	70-130	NA	0-20		
58-89-9	27512	LINDANE (BHC - GAMMA)	ND	0.94		1	ug/L	94	NA	70-130	NA	0-20		
72-43-5	27512	METHOXYCHLOR	ND	1.28		1	ug/L	128	NA	70-130	NA	0-20		
122-34-9	27512	SIMAZINE	ND	1.22		1	ug/L	122	NA	70-130	NA	0-20		
<b>531_240605</b>														
1563-66-2	27010	CARBOFURAN	ND	20.8	20.9	20	ug/L	104	105	70-130	0.5	0-20		

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of an analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

FORM: QC Dependent\_Port.rpt

14673 -





ANALYTICAL



# SAMPLE DEPENDENT QUALITY CONTROL REPORT

Duplicate, Matrix Spike/Matrix Spike Duplicate  
and Confirmation Result Report

Reference Number: **24-14739**

Report Date: 7/3/2024

## Laboratory Fortified Matrix (MS)

Batch/CAS	Sample	Analyte	Result	Spike Result	Duplicate Spike Result	Conc	Units	Percent Recovery		Limits*	%RPD	Limits*	QC Qualifier	Comments
								MS	MSD					
23135-22-0	27010	OXAMYL (VYDATE)	ND	22.7	22.7	20	ug/L	114	114	70-130	0.0	0-20		
<b>547_240530</b>														
1071-83-6	27510	GLYPHOSATE	ND	17.2		20	ug/L	86	NA	81-126	NA	0-20		
1071-83-6	27917	GLYPHOSATE	ND	0.0345		0.04	mg/L	86	NA	81-126	NA	0-20		
<b>548_240528</b>														
145-73-3	27508	ENDOTHALL	ND	3.30		5	ug/L	66	NA	50-150	NA	0-20		
145-73-3	27511	ENDOTHALL	ND	4.42		5	ug/L	88	NA	50-150	NA	0-20		
<b>549_240528</b>														
85-00-7	23654	DIQUAT	ND	18.8		20	ug/L	94	NA	70-130	NA	0-20		
85-00-7	27510	DIQUAT	ND	17.2		20	ug/L	86	NA	70-130	NA	0-20		
<b>ENO3_240524</b>														
14797-55-8	27892	NITRATE-N	0.50	1.01	1.00	0.50	mg/L	102	100	80-120	2.0	0-20		
<b>IC05_240524A</b>														
16984-48-8	27443	FLUORIDE	ND	0.98		1	mg/L	98		90-110	NA	0-20		
16984-48-8	28210	FLUORIDE	0.11	1.06		1	mg/L	95		90-110	NA	0-20		

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of a analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

FORM: QC Dependent\_Port.rpt

14673 -



## QUALITY CONTROL REPORT SURROGATE REPORT

Reference Number: 24-14739

Report Date: 07/03/24

Lab No	Analyte	Result	Qualifier	Units	Method	Limit
508_240531 27786	TETRACHLORO-M-XYLENE (SURRE)	103		%	508.1	Acceptance Limits 70%-130%
515_240604 27786	2,4 - DCAA (SURRE)	97		%	515.4	Acceptance Limits 70%-130%
524_240604 27786	d8-TOLUENE (Surr)	85		%	524.2	Acceptance Range: 50-150%
525_240531 27786	1,3-DIMETHYL-2-NITROBENZENE (Surr)	97		%	525.2	Acceptance Limits 70%-130%
	PYRENE-D10 (Surr)	88		%		Acceptance Limits 70%-130%
	TRIPHENYLPHOSPHATE (Surr)	107		%		Acceptance Limits 70%-130%

\*Notation:

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## Qualifier Definitions

Reference Number: 24-14739

Report Date: 07/03/24

Qualifier	Definition
HR	High QCS recovery due to increased detector response No sample detections, therefore, no further action taken for this analysis set.
IM	Matrix induced bias assumed
IS	The ratio of the spike concentration to sample background was too low to meet performance criteria
JJ	The amount detected is below the Method's Reporting Level but equal or greater than the lab's Practical Quantitation Level.
LR	Low recovery can not be accounted for. However, there is adequate sensitivity to detect the compound at the MRL. No sample detections so no further action for this analysis batch.
M1	Matrix spike recovery was high; the associated blank spike recovery was acceptable. Matrix bias indicated.
PH	Data Suspect: The sample was not preserved at pH <2

Note: Some qualifier definitions found on this page may pertain to results or QC data which are not printed with this report.



Portland Lab 9725 SW Commerce Circle Ste. A2, Wilsonville - 97070 • 503-682-7802  
Corvallis Lab 1100 NE Circle Blvd Ste. 130, Corvallis - 97330 • 541-753-4946  
Bend Lab 20332 Empire Ave Ste. F4, Bend - 97703 • 541-639-8425

OREGON DRINKING WATER  
SAMPLE INFORMATION

24-14739  
27786

Report To: <u>Jim Newton, Cascade Greening</u>	Bill To: <u>Eagle Crest Market</u>	<input type="checkbox"/> Same As Report To
Address: <u>21145 Scottsdale Dr</u>	Address: <u>8300 Coopers Hawk</u>	
City: <u>Bend</u> State: <u>OR</u> Zip: <u>97701</u>	City: <u>Redmond</u> State: <u>OR</u> Zip: <u>97756</u>	
Phone: <u>360-907-4162</u> Fax:	Phone: <u>541-548-9300</u>	
Email: <u>newtonjim@hotmail.com</u>	P. O. #	
Contact: <u>Jim Newton</u>	Email:	
Project Name: <u>ECMA Well 2C</u>	Client ID:	

SAMPLING INFORMATION REQUIRED

☒ Investigative ☐ Compliance - is for State regulations for Public Water Systems. (Results will be sent to you and the State.)

Date Collected: 5/24/2024 Time Collected: 1348 AM ☐ PM ☒ Collected By: Jim Newton

Sample address: Well 2C, L-155269

Source: (well, city water, spring, stream, other) Well Specific Location: (Outside faucet, kitchen faucet, bath faucet, other) Sample Port

PUBLIC WATER SYSTEM (ONLY)

System ID Number: \_\_\_\_\_ County: \_\_\_\_\_

System Name: \_\_\_\_\_

Sample Taken: ☐ At source (SRC-\_\_\_\_\_) ☐ At Entry Point (EP-\_\_\_\_\_) ☐ In Distribution (DIST-\_\_\_\_\_)

Treatment Type: ☐ None ☐ Chlorination ☐ Other

Residual Chlorine: \_\_\_\_\_ mg/L

Sample type: routine, special, assessment, other: \_\_\_\_\_ Initial Positive ID#: \_\_\_\_\_ Date of Initial Positive: \_\_\_\_\_

ANALYSIS TO PERFORM

FREQUENTLY REQUESTED TESTS. FOR OTHERS, PLEASE LIST UNDER OTHER ANALYSIS.

Bacteriology	Public Water Systems	Other Analysis:
<input checked="" type="checkbox"/> Total Coliform & E. coli - Presence/Absence	<input checked="" type="checkbox"/> SOC OR panel	<input type="checkbox"/> Peace of Mind 1.0
<input type="checkbox"/> _____	<input checked="" type="checkbox"/> VOC OR panel	<input type="checkbox"/> Peace of Mind, with VOCs 2.0
<u>Inorganic Compounds</u>	<input checked="" type="checkbox"/> IOC OR panel	<input type="checkbox"/> Water Treatment Package
<input type="checkbox"/> Nitrate	<input type="checkbox"/> 552.3 Haloacetic Acids (HAA5)	<input type="checkbox"/> Nuisance Package
<input type="checkbox"/> Arsenic	<input type="checkbox"/> 524.2 Trihalomethanes (TTHM)	<input type="checkbox"/> _____
<input checked="" type="checkbox"/> Metals (List or circle each metal individually)*	<input type="checkbox"/> Lead and Copper Rule (Special Sampling)	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input checked="" type="checkbox"/> <u>Rad 226 / 228</u>	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input checked="" type="checkbox"/> <u>Gross alpha/beta</u>	<input type="checkbox"/> _____

\*METALS: Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, K, Se, Si, Ag, Na, Sr, Ti, Sn, U, V, Zn

Turnaround Time Requested (Inorganic Compounds Only)

☐ STANDARD - 10-15 BUSINESS DAYS ☐ HALFTIME - 5-6 BUSINESS DAYS (SURCHARGE APPLIES) ☐ QUICKEST - 3-4 BUSINESS DAYS (SURCHARGE APPLIES)

Remarks or Special Instructions:

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
<u>[Signature]</u>	<u>5/22/24</u>	<u>1415</u>	<u>X [Signature]</u>	<u>5.22.24</u>	<u>1415</u>

EVIDENCE OF COOLING 1414

SAMPLE TEMP 16.5 °C (IRG01) SATISFACTORY

SAMPLES RECEIVED INTACT / IN HOLD TIMES

APPROPRIATE CONTAINERS

BOTTLES ORIGINATED FROM EDGE

PAYMENT:

☐ CREDIT CARD ☐ CASH ☐ CHECK # \_\_\_\_\_

☐ INVOICE ☐ AMOUNT \$ \_\_\_\_\_

IF NO, SOURCE: \_\_\_\_\_

GENERAL INSTRUCTIONS ARE ON THE BACK

14673 -





ANALYTICAL

Portland Lab

9725 SW Commerce Circle Ste. A2, Wilsonville - 97070 • 503-682-7802

Corvallis Lab

1100 NE Circle Blvd Ste. 130, Corvallis - 97330 • 541-753-4946

Bend Lab

20332 Empire Ave Ste. F4, Bend - 97703 • 541-639-8425

OREGON DRINKING WATER  
SAMPLE INFORMATION24-14739  
27786

Report To: <u>Jim Newton, Cascade Greening</u>	Bill To: <u>Eagle Crest mdr</u>	<input type="checkbox"/> Same As Report To
Address: <u>21145 Scottsdale Dr</u>	Address: <u>8300 Coopers House</u>	<u>(ECMA)</u>
City: <u>Bend</u> State: <u>OR</u> Zip: <u>97701</u>	City: <u>Redmond</u> State: <u>OR</u> Zip: <u>97758</u>	
Phone: <u>360-907-4162</u> Fax:	Phone: <u>521-548-9300</u>	
Email: <u>newtonjim@hotmail.com</u>	P.O. #	
Contact: <u>Jim Newton</u>	Email:	
Project Name: <u>ECMA well 2C</u>	Client ID:	

## SAMPLING INFORMATION REQUIRED

☒ Investigative ☐ Compliance - is for State regulations for Public Water Systems. (Results will be sent to you and the State.)

Date Collected: 5/22/2024 Time Collected: 1348 AM ☐ PM ☒ Collected By: Jim Newton

Sample address: Well 2C; L-155269

Source: (well, city water, spring, stream, other) well Specific Location: (Outside faucet, kitchen faucet, bath faucet, other) Sample Port

## PUBLIC WATER SYSTEM (ONLY)

System ID Number: \_\_\_\_\_ County: \_\_\_\_\_

System Name: \_\_\_\_\_

Sample Taken: ☐ At source (SRC-\_\_\_\_\_) ☐ At Entry Point (EP-\_\_\_\_\_) ☐ In Distribution (DIST-\_\_\_\_\_)

Treatment Type: ☐ None ☐ Chlorination ☐ Other \_\_\_\_\_

Residual Chlorine: \_\_\_\_\_ mg/L

Sample type: routine, special, assessment, other: \_\_\_\_\_ Initial Positive ID#: \_\_\_\_\_ Date of Initial Positive: \_\_\_\_\_

## ANALYSIS TO PERFORM

FREQUENTLY REQUESTED TESTS. FOR OTHERS, PLEASE LIST UNDER OTHER ANALYSIS.

## Bacteriology

- ☒ Total Coliform & E. coli - Presence/Absence
- ☐ \_\_\_\_\_

## Inorganic Compounds

- ☐ Nitrate
- ☐ Arsenic
- ☒ Metals (List or circle each metal individually)\*
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_

## Public Water Systems

- ☒ SOC OR panel
- ☒ VOC OR panel
- ☒ IOC OR panel
- ☐ 552.3 Haloacetic Acids (HAA5)
- ☐ 524.2 Trihalomethanes (THM)
- ☐ Lead and Copper Rule (Special Sampling)
- ☒ Rad 226 / 228
- ☒ Gross alpha/beta

## Other Analysis:

- ☐ Peace of Mind 1.0
- ☐ Peace of Mind, with VOCs 2.0
- ☐ Water Treatment Package
- ☐ Nuisance Package
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_

\*METALS: Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, K, Se, Si, Ag, Na, Sr, Ti, Sn, Ti(U), V, Zn

## Turnaround Time Requested (Inorganic Compounds Only)

- ☐ STANDARD - 10-15 BUSINESS DAYS ☐ HALFTIME - 5-6 BUSINESS DAYS (SURCHARGE APPLIES) ☐ QUICKEST - 3-4 BUSINESS DAYS (SURCHARGE APPLIES)

Remarks or Special Instructions:

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
X <u>[Signature]</u>	<u>5/22/24</u>	<u>1415</u>	X <u>[Signature]</u>	<u>5.22.24</u>	<u>1415</u>

EVIDENCE OF COOLING

SAMPLE TEMP 16.5 °C (IRG01) SATISFACTORY

SAMPLES RECEIVED INTACT / IN HOLD TIMES

APPROPRIATE CONTAINERS

BOTTLES ORIGINATED FROM EDGE

YES	NO	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PAYMENT:

☐ CREDIT CARD☐ CASH☐ CHECK # \_\_\_\_\_☐ INVOICE☐ AMOUNT \$ \_\_\_\_\_

\* IF NO, SOURCE: \_\_\_\_\_

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## Land Use Compatibility Statement

Certain plan review approvals for drinking water projects have been identified by the Land Conservation and Development Commission as Class B permits affecting land use. The Oregon Health Authority is therefore required by ORS 197.180, OAR 660, division 30, OAR 660, division 31, the Oregon Health Authority's approved State Agency Coordination Program, and OAR 333-061-0062 to ensure that projects defined in OAR 333-061-0062(1) conform with statewide planning goals and are compatible with city and county comprehensive plans and land use regulations. In order to ensure such compatibility, this form or other acceptable documentation and necessary attachments must accompany each applicable set of project plans submitted to the Oregon Health Authority for review.

### General Information

Project Title Eagle Crest Master Association New Well #2C

Applicant Eagle Crest Master Association  
Name of Water System

Type of Project New Source (Proposed Replacement Well #2C)  
Treatment, Transmission, Storage, Distribution, New Source, etc.

Project Contact Person Jim Newton, Project Geologist/Engineer  
Engineer, Owner, etc., including title

21145 Scottsdale DR  
Mailing Address

Bend, Oregon 97701 360-907-4162  
City, State, Zip Code Phone

newtonjim@hotmail.com  
Email Address

The local government entity\* having comprehensive planning authority over the site of the proposed project is:

Agency Name Deschutes County Phone 541-388-6560

Address 117 NW Lafayette Avenue, Bend, OR Zip 97703

(\*If the proposed project is located within the jurisdiction of more than one planning authority, all entities must certify compatibility.)

(Continued on Back)



Complete either part A or part B.

☒ A. Land Use Compatibility Determination - Planning Authority Statement  
(to be completed by local planning authority)

I certify that this project has been reviewed for compatibility with:

- The acknowledged comprehensive plan and land use regulations.
- Statewide planning goals. The goals apply because conditions described in OAR 660-31-0025(3) exist.

I find that this project (**check one**) ☒ IS compatible **\*Please see attached Letter**  
☐ IS NOT compatible

Attach appropriate land use decision(s) written findings as required in ORS 215.416 (8) or (9), or 227.173 (1) or (2), or OAR 660-31-026.

Signature  Date 02/23/2024

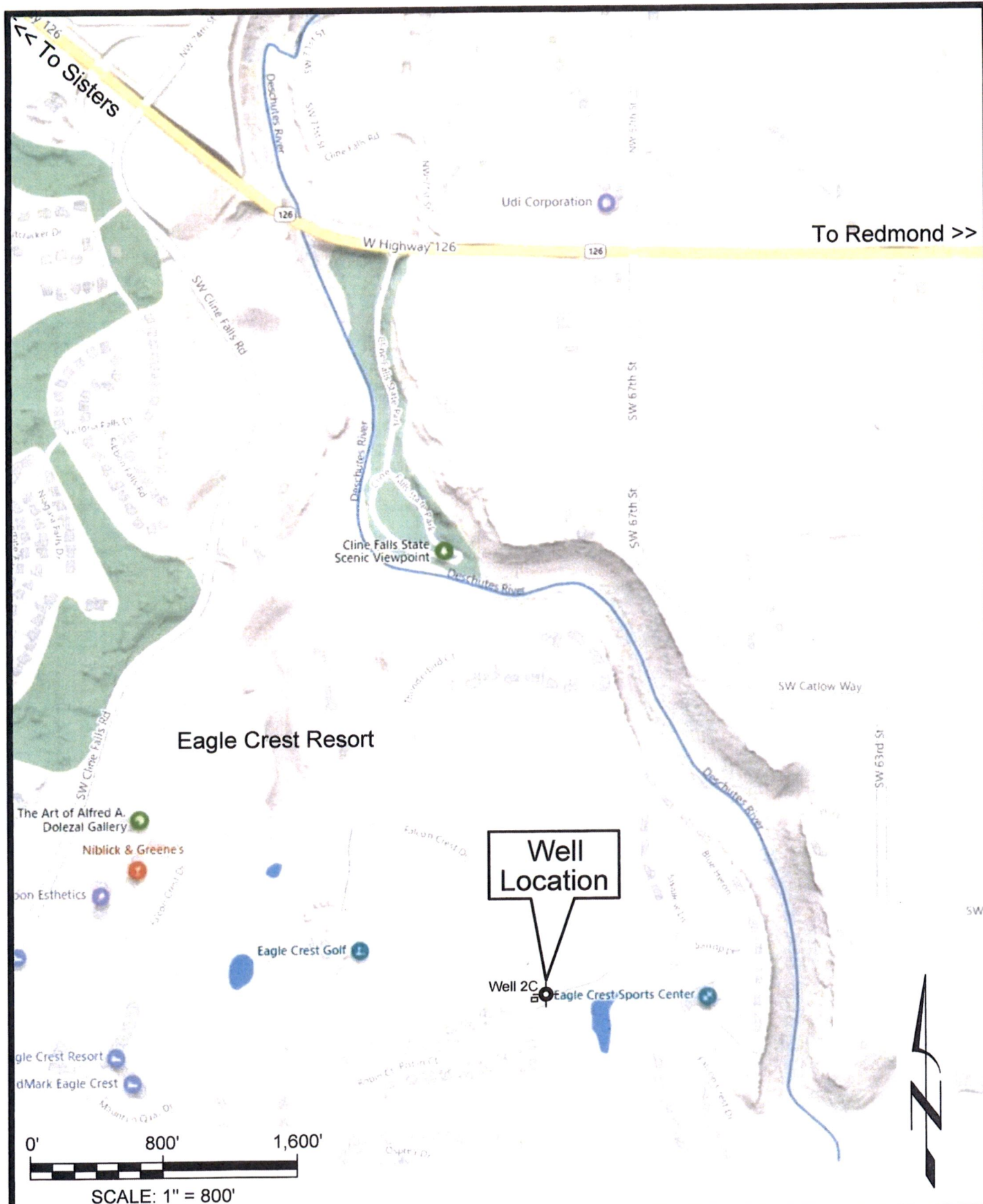
Print Name Nathaniel Miller Title Associate Planner

☐ B. Request for Conditional Plan Review Approval, Pending Land Use Compatibility Determination (to be completed by applicant)

I hereby certify that I have applied to the local government entity cited on page 1 for a determination of compatibility with the local acknowledged plan or the statewide planning goals as applicable. I hereby request that the Authority issue a conditional approval of the plans with the understanding that issuance of said approval is not a finding of compliance with the statewide planning goals or compatibility with the applicable, acknowledged comprehensive plan and land use regulations, but is conditional upon the applicant receiving a land use approval from each unit of local government. I understand that final plan review approval for this project will not be effective until and unless the Oregon Health Authority receives a signed copy of the land use approval and determines it to be complete and adequate.

Signature \_\_\_\_\_ Date \_\_\_\_\_

Print Name \_\_\_\_\_ Title \_\_\_\_\_



**CASCADE**  
**GEOENGINEERING**  
 360.907.4162 cascadegeoengineering.com

# Vicinity Map; ECMA Site Plan Review Proposed New Well 2C Deschutes County, Oregon

DESIGNED BY:  
 J. Newton

DRAWN BY:  
 R2D

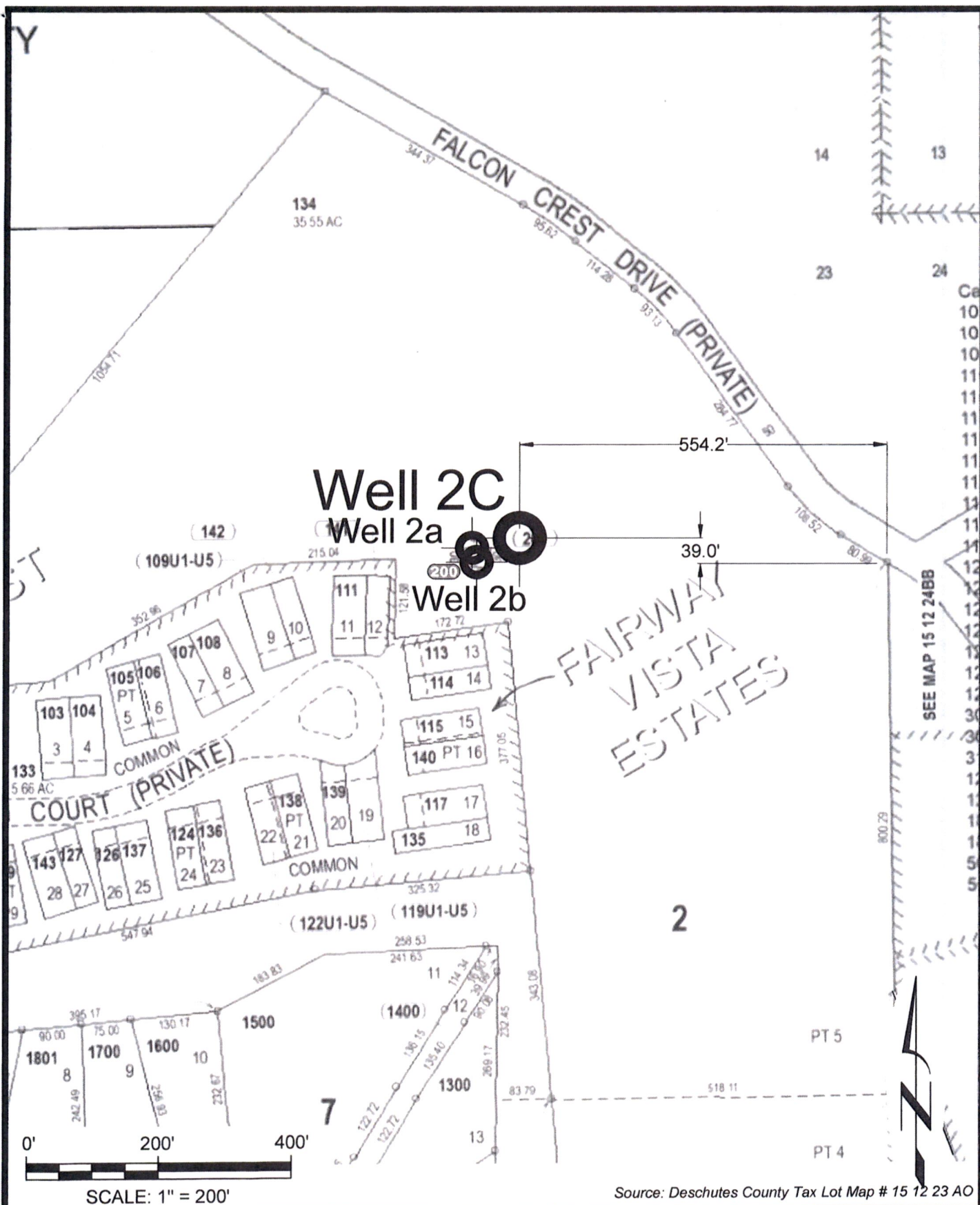
DATE:  
 DEC 2023

PROJECT NO.  
 CG 1041-101

FIGURE 1

14673 - --





Source: Deschutes County Tax Lot Map # 15 12 23 AO



**CASCADE**  
GEOENGINEERING  
360.907.4162  
cascadgeoengineering.com

## Tax Lot Map; ECMA Site Plan Review

### Proposed New Well 2C

### Deschutes County, Oregon

DESIGNED BY:  
J. Newton

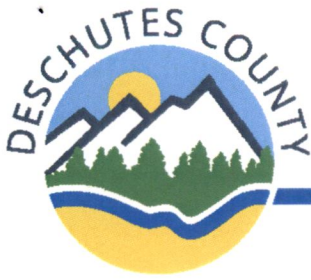
DRAWN BY:  
R2D

DATE:  
DEC 2023

PROJECT NO.  
CG 1041-101

FIGURE 2

14673 -



**247-23-000836-PS**

**Subject Properties:**

**Mailing Name:** EAGLE CREST MASTER ASSOCIATION

**Map and Taxlot:** 151223A000200

**Account:** 170026

**Situs Address:** 6875 ROBIN CT, REDMOND, OR 97756

**Mailing Name:** EAGLE CREST MASTER ASSOC ET AL

**Map and Taxlot:** 151223A000134

**Account:** 179901

**Situs Address:** \*\*NO SITUS ADDRESS\*\* [Update]

**Request:** The applicant has requested a Land Use Compatibility Statement (LUCS) for the Oregon Health Authority for a replacement well on the properties listed above. Staff notes that Well 2A and 2B are operational. The replacement well identified on the submitted map as 2C will replace 2A. Staff also notes that the current wells are on Tax Lot 200. The replacement well (2C) will be located on Tax Lot 134 (below grade) and will connect to existing distribution infrastructure on Tax Lot 200. This was verified by planning staff by telephone on 02/23/2024.

To the extent other uses or structures are included on the LUCS application sheet, this LUCS does not review or approve those uses.

This LUCS does not review or approve:

- Construction of buildings,
- Earthmoving or construction in floodplains,
- Earthmoving, construction, or vegetation changes in wetlands,
- Surface mining, and/or
- Other primary or accessory uses regulated by the Deschutes County Code

Each of the listed uses may require separate land use permits and/or building permits, which are not covered by this LUCS. This LUCS does not confirm compliance with wetlands or floodplain regulations. On-site sales or on-site processing of farm crops may require additional permits. Any development on the properties are subject to all requirements of Title 18 of the Deschutes County Code (DCC), the requirements of the Environmental Soils and Building Safety Divisions, and the Deschutes County Road Department for access to public roads

For more information, please contact the Planning Division office at 541-388-6560.





## HEARINGS OFFICER

DESCHUTES COUNTY COURTHOUSE ANNEX BEND, OREGON 97701  
TELEPHONE (503) 388-6626



### FINDINGS AND DECISION

FILE NO: CU-81-144

APPLICANT: Chase, Lyche, Wareing and Wareing

REQUEST: A conditional use application to permit the development of a destination resort.

PLANNING STAFF REPRESENTATIVE: Lin Bernhardt

PLANNING STAFF RECOMMENDATION: Approval

PUBLIC HEARING: The public hearing was held in room 106, Deschutes County Courthouse Annex, Bend, Oregon on Tuesday, March 9, 1982 and continued for decision only until March 23, 1982, at which time an oral decision was rendered.

BURDEN OF PROOF: In order to receive approval of this request the applicant must meet the criteria set forth Article 1, Section 1.030(25) of PL-15, Deschutes County Zoning Ordinance and Deschutes County Procedural Ordinance PL-9.

FINDINGS:

1. LOCATION:  
The subject property is located easterly off the Cline Falls Highway, approximately 1/2 mile southerly of Highway 126 and is further described as Township 15 south, Range 12 east of the Willamette Meridian and is further described as: Section 24, Tax Lots 200, 201, and 202; Section 13, Tax Lot 2000; Section 14, Tax Lot 700, Section 14, Tax Lot 400, and Section 23, Tax Lots 101, and 102.
2. ZONE:  
The subject property is located in an EFU-20, Exclusive Farm Use zone and a MUA-10 zone.

3. COMPREHENSIVE PLAN DESIGNATION:

The subject property is designated as Agriculture on the Comprehensive Plan map.

4. SITE DESCRIPTION:

The subject property is approximately 472 acres in size and the topography is generally level, bordered by rimrock and the Deschutes River on the east, with a vegetative cover of sage brush and juniper trees. There are no structures currently located on the property, and there is no main access to the parcel.

CONCLUSIONS:

The applicant has addressed the criteria set forth in Section 10.049 of PL-15, Deschutes County Zoning Ordinance and Procedural Ordinance PL-9 as follows:

The Deschutes County Year 2000 Comprehensive Plan (page 47) as it relates to rural development, indicates that destination resorts have been found to be economically, and a socially desired land use, when developed consistent with the capabilities of the land and the abilities of the various public and private agencies serving that area. The Comprehensive Plan encourages cluster development in close proximity to utilities or rural service centers to ensure efficient extension of public services. As the documentation indicates, basically relying upon the booklet submitted as exhibit #10 by the applicants, the schematic architectural rendering which is exhibit, the oral presentation made by the applicant and his attorney during the hearing of March 9, 1982. The Hearings Officer finds that the proposed project is four miles from the City of Redmond, and there are existing developments in close proximity to the site. Said services such as water and sewer will be provided on the site.

The Comprehensive Plan (page 108) deals with the realization that much of the seasonal developments are now becoming full-time residents that require school services. The schools have been forced to seek additional funding for buildings and more teachers. This site has a potential impact upon the school services in the area.

However, the revenues generated from the proposed development should more than off-set the increased demand for services in the area of schools. The proposed development will have a substantial impact on tourism, recreation construction and employment in the area. The Deschutes County Comprehensive Plan encourages programs that appropriately increases employment opportunities and especially encouraging recreation and tourism to assist the County's tax base.



From the evidence submitted by the applicant and there being no evidence submitted in opposition, this project will have a favorable social and economic impact. Environmental impacts will be kept at a minimum with site review and conformance with site review standards.

The agricultural production in the area is limited with some residential development occurring in the surrounding area. This project will be compatible with the surrounding area in maintaining its rural character, as the proposed developed is supposed to have an 18 hole golf course and some man-made lakes, thus keeping much of the area in open space. Also, there are some portions of the project that will remain in the agricultural form that surrounds parts of the property. Approximately 70 acres will remain in pasture and undeveloped open space. Of the total project, approximately 80% will remain in open space.

There are a number of single family, five acre parcels in the general area of this proposed development. Those areas have been found previously to be of limited agricultural lands, primarily Class VII soils and of such that a profitable farm income cannot be from the property.

This application includes as part of the conditional use a proposed 18 hole golf course. No separate conditional application will be necessary for the approval of the golf course.

The Master Plan, as submitted and represented in the applicant's exhibit #13, is the controlling document for the development of this destination resort. Any significant changes from exhibit #13 will require a amendment to this Master Plan.

The Hearings Officer finds that this application has met the criteria set forth for conditional uses in the County Ordinances.

DECISION: APPROVAL, subject to the following conditions:

1. The land remaining in the EFU-20, Exclusive Farm Use zone, shall be allowed to develop in line with outright uses in an agricultural zone and will have the right to apply for any conditional use that is listed as a conditional use in an EFU-20 zone, as specified in the Deschutes County Zoning Ordinance.
2. Any signs to be erected shall be approved by the Deschutes County Planning Department in conformance with Ordinance No. 81-009.
3. The location of the proposed restaurant, located in the northerly portion of the property shall be allowed only if it complies with all requirements of the County's Comprehensive Plan Zoning Ordinance and Rimrock Order. If these requirements can not be met, then the Hearings Officer recommends


that the restaurant be eliminated or placed in a more appropriate location, in order to protect the rimrock on the property and the rural character of the area.

4. An annual traffic count shall be made by the applicants and approved by the Planning Department, starting at the time development commences.
5. A traffic study approved by the Planning Department and implemented by the applicant shall be completed by November 15, 1984. The applicant hereby agrees to participate in necessary improvements identified in the study and in a direct proportionate share, which can be attributed to the impact of this proposed development, of those needed improvements.
6. The applicant must demonstrate funding ability prior to each phase of the development.
7. There shall be a site plan approval for the time-share units, community facilities and for each phase of development of the project.
8. The proposal, including setbacks for structures to be built along the Deschutes River, shall comply with Deschutes County Zoning Ordinance PL-15 and Subdivision Ordinance 81-043.
9. The sports complex and indoor facilities, offices, golf pro shop, resort maintenance and security facilities, and the fire house shall be completed within three (3) years from the date of approval of the conditional use application. The remaining facilities of the core area and the time-share units shall be completed within six years of approval.
10. Construction of the project shall commence within one year of the approval date. Substantial construction on the project needs to be under way within a reasonable time after the approval date. The Hearings Officer recognizes that the project is to be phased over a period of six years.
11. There shall be a Development Agreement signed between the applicants and Deschutes County to assure continued maintenance of this project.
12. This approval is contingent upon the decision of Zone Change 81-28.



DATED this 29<sup>th</sup> day of March, 1982.

This decision becomes final fifteen days after date mailed, unless appealed to the Planning Commission by a party of interest.

  
Myer Avedovech  
HEARINGS OFFICER

MA:ch

cc: File  
Planning Commission  
Planning Department  
David Jaqua  
Stanley and Helen Wareing  
Lucile Wareing  
William Lyche  
Frank Chase

**OHA – DWS FINAL APPROVAL LETTER**



February 6, 2025

Jim Newton, PE, RG, CWRE  
Principal – Engineer-Geologist  
Cascade Geoengineering, LLC  
Via email: newtonjim@hotmail.com

**Re: Well 2C (PR#163-2023)  
Eagle Crest Resort (PWS ID#01355)  
Final Approval**

Dear Jim:

On January 30, 2025, our office received additional information for the Well 2C project for Eagle Crest Resort, including a well log, photos of the installation, signed land use compatibility statement, pump test results, and sampling results.


Our regional geologist reviewed the well log construction details for Well 2C (DESC64749). He noted that the well meets current construction standards and is constructed into a confined aquifer composed of layered volcanics of the Deschutes formation. The change in static water level shown on the well log is an indication that the aquifer is under pressure.

Sensitivity analysis results indicates that the well is highly sensitive, and surface water is located within 500 feet. Submitted coliform result was absent for coliform. The well will need to be considered for ground water under the direct influence of surface water (GWUDI) if coliform is repeatedly detected or if E.coli is confirmed in the source.

Final approval is issued at this time, and the facility is approved for use. Please see the monitoring table on the next page. Please work with Jeff Freund (copied on the email that accompanies this letter) on the timing of activation of this well. The schedules will become active once the source is activated.

If you have any questions, please feel free to call me at (971) 201-9794.

Sincerely,

  
 Carrie Gentry, PE  
 Regional Engineer  
 OHA-Drinking Water Services  
[Carrie.L.Gentry@oha.oregon.gov](mailto:Carrie.L.Gentry@oha.oregon.gov)

cc: Josh Seerup, REHS, OHA/DWS  
 Jeff Freund, REHS, Deschutes County Environmental Health Services  
 Brett Limbeck, Eagle Crest Resort, [blimbeck@swcc.com](mailto:blimbeck@swcc.com)

Table 1 –Initial Monitoring for Well #2C (SRC-AC) and Entry Point A (EP-A)				
Year 1				
Sample by the end of the first quarter of operation (after Final Approval)	2nd Quarter of Operation	3rd Quarter of operation	Year 2	Year 3
Sample at the Entry Point (EP-A) to the distribution system served by the new source (after treatment)				
<ul style="list-style-type: none"><li>Radiological</li></ul>	<ul style="list-style-type: none"><li>Radiological if initial and first quarter sampling has radiological detections</li></ul>	<ul style="list-style-type: none"><li>Radiological if initial and first quarter sampling has radiological detections</li></ul>	Annual: <ul style="list-style-type: none"><li>Nitrate</li><li>VOC</li><li>SOC</li></ul>	
Lead and Copper Tap Sampling in the Distribution System (to assess impact of the new well on distribution system corrosion*).				
<ul style="list-style-type: none"><li>Sample at 10 Tier 1 sites (1<sup>st</sup> 6-months of operation)</li></ul>		<ul style="list-style-type: none"><li>Sample at 10 Tier 1 sites (second 6 months of operation)</li></ul>	Reduction to 5 tap samples every 3 years is possible depending upon results	
*Changes in water quality due to the addition of a new source may impact the corrosivity of the water, therefore, two 6-month demonstration rounds of lead and copper tap samples at an increased number of 10 Tier 1 sample sites are needed to verify that the well does not adversely contribute to lead and copper corrosion.				