

Application No. 6-12685

OCT -6 1991

WATER RESOURCES DEPT.
SALEM, OREGONState of Oregon
WATER RESOURCES DEPARTMENT**Application for a Permit to Appropriate Ground Water**Applicant(s) Harry G. Spencer
(Please print or type - use dark ink)Mailing Address: P. O. Box 291

| | | | |
|-----------------|---------------|--------------|--------------------------|
| <u>Langlois</u> | <u>Oregon</u> | <u>97450</u> | <u>503/347-4114</u> |
| <u>City</u> | <u>State</u> | <u>Zip</u> | <u>Daytime Phone No.</u> |

I (We) make application for a permit to appropriate the following described ground waters of the State of Oregon:

1. **THE DEVELOPMENT** (number of wells, tile lines, infiltration galleries, etc.): two wells

If development is less than one mile from a natural stream, give the following:

Distance from development to stream: well #1 = 630 ft. well #2 = 520 ft.

Elevation difference between streambed and development: well #1 = 35 ft. well #2 = 40 f

NOTE: Wells must be constructed according to standards set by the department for the construction and maintenance of water wells. If the well is already constructed, please enclose a copy of the well driller's log with this application, and skip to Section 2 below. See enclosed water well reports.

See remarks as to well identification.

Diameter of well: _____ Depth in feet: _____

Type and size of well casing: _____ No. of feet: _____

Estimated depth to water: _____

Type of access port or measuring device: _____

Wells to be drilled by: _____

Address: _____

If the water well is flowing artesian, describe your water control and conservation works: _____

_____2. **TOTAL AMOUNT OF WATER** to be applied to beneficial use: 0.357 cubic feet per second, OR 160 gallons per minute. If water is to be used from more than one ground water source, give the quantity of water from each: being 0.178 cfs from well #1 and 0.178 cfs from well #2.

3. INTENDED USE(s) OF WATER: Cranberry use and nursery operations.

If for more than one use, give the quantity of water from each source for each use:

0.178 cfs from well #1 for cranberry use. 0.178 cfs from well #2, cranberry use.
0.008 cfs from well #1 for nursery operations. 0.10 cfs from well #2, nursery oper.

If for DOMESTIC use, state the number of households to be supplied: _____

If for MUNICIPAL OR QUASI-MUNICIPAL use, state the present population to be served, and an estimate of the future requirements; (List population projections, water needs, anticipated areas to be provided water.)

If for MINING use, state the nature (gold, silver, etc.) of the mines to be served: _____

If for IRRIGATION, or other land area use, state the TOTAL number of acres to be developed under each use:

Irrigation cranberry use: 12.0
Other (describe) nursery operations: 4.0

4. DESCRIPTION OF WATER DELIVERY SYSTEM: *Include dimensions and type of construction of diversion works, length and dimensions of supply ditches or pipelines, size and type of pump and motor. If for irrigation, describe the type of system (i.e., flood, wheel line, hand line, drip, other).*

A submersible electric motor and pump with plastic pipe to the places of use.

Well #1 will deliver water directly to the 10.0 acres of cranberries, and 0.3 acres of nursery operations, or to in-system storage in the SW1/4 SW1/4, Section 11, then repumped to those places of use. Well #2 will do likewise, or pump directly to the 2.0 acres of cranberries in the NW1/4 NE1/4, Section 13, or to the adjacent in-system storage, then repumped to that place of use.

5. PROJECT SCHEDULE: *(List month and year)*

Proposed date construction work will begin Construction started

Proposed date construction work will be completed October 1, 1993

Proposed date water use will be completed October 1, 1997

NOTE: A map prepared by a Certified Water Right Examiner (CWRE) and a complete legal description of the subject property are required under ORS 537.140 and OAR 690 as a part of your application. The legal description may be copied from your deed, title insurance policy, or land sales contract.

6. a) In the event any deficiencies are noted involving the application map enclosed herein, please return the map with instructions for correction to (check one):

Applicant *CWRE* _____ *Other (Identify in REMARKS section)*

b) In the event any deficiencies are noted involving the application, please return the application with instructions for correction to (check one):

Applicant *CWRE* _____ *Other (Identify in REMARKS section)*

7. Are all lands involved (including the proposed diversion site, place of use, and access for conveying the water) under your ownership? no. If not, list in the REMARKS section below, or on an attached sheet, the names and mailing addresses of the legal owners of all property involved in the proposed development.

NOTE: Prior to receiving a certificate of water right, the permit holder must submit to the Water Resources Department the results of a pump test meeting the department's standards. The Director will require water level or pump test results every ten years thereafter.

REMARKS: Both wells have been drilled. Start card #16053 pertains to well #1, and start card #26375 pertains to well #2.

NOTE: The permit, when issued, is for the beneficial use of water without waste. By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan. It is possible the land use you propose may not be allowed if it is not in keeping with the goals and acknowledged plan. Your city or county planning agency can advise you about the land-use plan in your area.

Harry D. Spencer
Signature of Applicant

Data

9/27/91

Signature of Co-Applicant, if any

Date

FOR WATER RESOURCES DEPARTMENT USE ONLY

Dear Applicant:

I certify that I have examined the foregoing application, together with the accompanying information, and am returning it to you for:

In order to retain its tentative priority, this application must be returned with the requested corrections or additions on or before:

_____, 19____.

WITNESS my hand this _____ day of _____, 19____.

Water Resources Director

By: _____

This instrument was first received in the office of the Water Resources Director at Salem,
Oregon, on the 4th day of Oct, 1991, at 8 o'clock, A M.

APPLICATION NO: G-12685

TO: Water Rights Section

October 6, 1992

FROM: Groundwater/Hydrology Section Michael J. Zwart

ATTACHMENT 5

SUBJECT: Application G-12685

1. PER THE _____ Basin rules, one or more of the proposed POA's is/is not within _____ feet/mile of a surface water source (_____) and taps a groundwater source hydraulically connected to the surface water.

2. BASED UPON OAR 690-09 currently in effect, I have determined that the proposed groundwater use
 - a. will, or } have the potential for substantial interference with the nearest surface water
 - b. will not } source, namely _____; or
 - c. will, if properly conditioned, adequately protect the surface water from interference:
 - i. The permit should contain condition #(s) _____;
 - ii. The permit should contain special condition(s) as indicated in "Remarks" below;
 - iii. The permit should be conditioned as indicated in item 4 below; or
 - d. will, with well reconstruction, adequately protect the surface water from substantial interference.

3. BASED UPON available data, I have determined that groundwater for the proposed use
 - a. will, or } likely be available in the amounts requested without injury to prior rights and/or
 - b. will not } within the capacity of the resource; or
 - c. can, if properly conditioned, avoid injury to existing rights or to the groundwater resource:
 - i. The permit should contain condition #(s) 4 I;
 - ii. The permit should contain special condition(s) as indicated in "Remarks" below;
 - iii. The permit should be conditioned as indicated in item 4 below.

4.
 - a. THE PERMIT should allow groundwater production from no deeper than _____ ft. below land surface;
 - b. The permit should allow groundwater production from no shallower than _____ ft. below land surface;
 - c. The permit should allow groundwater production only from the _____ groundwater reservoir between approximately _____ ft. and _____ ft. below land surface;
 - d. Well reconstruction is necessary to accomplish one or more of the above conditions.
 - e. One or more POA's commingle 2 or more sources of water. The applicant must select one source of water per POA and specify the proportion of water to be produced from each source.

REMARKS: Supersedes review by Sarah Meyer of 11/12/91 and
12/5/91.

Oregon

WATER
RESOURCES
DEPARTMENT

February 17, 1993

Harry G. Spencer
P.O. Box 291
Langlois, OR 97450

Reference: File Number G-12685

Dear Mr. Spencer:

This letter informs you of the current status of your application for a water use permit and accompanies the Satisfactory Report of Technical Review For Water Use Permit(s). We apologize for the delay in transmitting this information and Report to you and for any inconvenience the wait may have caused you.

The enclosed Report of Technical Review is the Department's summary of a specialized analysis of various legal and scientific aspects of your application and proposed water use. We are required by the state of Oregon's administrative rules (in OAR 690-11-160) to conduct this official technical review of each application submitted to the Oregon Water Resources Department for a water use permit. This process was designed to insure that your application receives a fair evaluation and to secure protection of existing water rights and of the public at large.

AS THE RESULT OF OUR TECHNICAL EVALUATION OF YOUR APPLICATION, WE HAVE DETERMINED THAT YOUR APPLICATION SATISFIES THE REQUIREMENTS OF THE TECHNICAL REVIEW.

The Department will now move your application to the next phase of processing. This phase includes a public interest review of your proposed water use. No final action may be taken on your application until the public interest review is completed.

You should also note that the Report of Technical Review describes conditions currently anticipated which may limit the water use proposed in your application.

If you wish to object to any of the analyses contained in the Report, you must submit your objection to the Department in writing within 60 days of the date of mailing of this Report or by the date specified below. Your objection must allege that the technical review is defective and you may also submit evidence which demonstrates that your proposed water use will not impair or be detrimental to the public interest.



3850 Portland Rd NE
Salem, OR 97310
(503) 378-3739
FAX (503) 378-8130

Copies of the Report of Technical Review will be distributed to all persons who have filed comments or otherwise expressed an interest in the water use proposed in your application. Interested parties must also submit their objections within the prescribed objection period. Those objections must allege that the technical review is defective and/or that the proposed water use may impair or be detrimental to the public interest.

If an objection contains allegations that the technical review is defective, it must be accompanied by facts which support such allegations. If an objection contains allegations that the proposed water use may impair or be detrimental to the public interest, the objection must specify the particular public interest standards which apply as set out in Oregon Revised Statutes (ORS 537.170(5)) and Oregon Administrative Rules (OAR 690-11-195) and state facts showing how such standards would be violated.

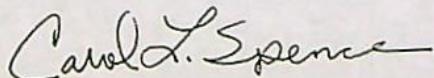
All evidence and objections must be received by our Salem office no later than 5:00 p.m. on or before April 30, 1993 or the Department may presume there is no opposition to any of the analyses set out in the technical review report. Evidence and objections must be addressed and delivered to: Oregon Water Resources Department, Water Rights Section, 3850 Portland Road, Northeast, Salem, Oregon 97310.

If objections and evidence are submitted on or before the above time and date, the Director of the Water Resources Department will evaluate each issue raised in the objections and either accept or deny them. Objectors are encouraged to indicate whether they would be interested in resolving their concerns through alternative dispute resolution.

If any of the objections are denied, the objector will be allowed thirty days to submit a protest to the denial. The protest must meet the standards set forth in OAR 690-02-030 through 080.

If you have any questions, please feel free to telephone me or any of the Department's Water Rights Section staff. My telephone number is 378-3739, in Salem, or you may call toll free from within the state to 1-800-624-3199.

Sincerely,



CAROL LEWIS SPENCE
Senior Water Rights Specialist

Enclosure

cc: ODFW
WATERWATCH
WATERMASTER #19

Report Date: December 29, 1992

SB
2/7/93
Clyde

OREGON WATER RESOURCES DEPARTMENT

SATISFACTORY REPORT OF TECHNICAL REVIEW FOR WATER USE PERMIT(S)

OBJECTIONS TO THE PROPOSED WATER USE AS DESCRIBED BELOW MUST BE RECEIVED IN WRITING BY THE OREGON WATER RESOURCES DEPARTMENT, 3850 PORTLAND ROAD N.E., SALEM, OREGON 97310, BY 5 P.M. ON OR BEFORE:

APRIL 30, 1993.

APPLICATION FILE NUMBER - G 12685

Applicant name/address/county/phone:

HARRY G SPENCER
PO BOX 291
LANGLOIS, OR 97450
COOS Co. 503-347-4114

Date application received for filing and/or tentative date of priority: 10/ 4/1991

SOURCE: WELLS 1 & 2

BASIN: CROFT LAKE

Purpose and/or use: NURSERY and CRANBERRY OPERATIONS.

Flow: 0.356 cfs; being 0.178 cfs for cranberry operations and 0.008 cfs for nursery operations from well 1 and 0.178 cfs for cranberry operations and 0.10 cfs for nursery operations from well 2.

Point of Diversion Location:

WELL 1 - SE 1/4 SE 1/4, Section 11, T 30 S, R 15 W, WM; 1030 feet north and 750 feet west, from SE corner Section 11;

WELL 2 - SE 1/4 SE 1/4, Section 11, T 30 S, R 15 W, WM; 5 feet north and 20 feet west, from SE corner Section 11;

Place of use:

| | CRANBERRY | NURSERY |
|--------------------------------------|------------|-----------|
| SE 1/4 SE 1/4 | 10.0 Acres | 4.0 Acres |
| Section 11 | | |
| Nw 1/4 NE 1/4 | 2.0 Acres | |
| Section 13 | | |
| Township 30 South, Range 15 West, WM | | |

This is an application for use of GROUNDWATER.

The Groundwater/Hydrology Section report indicates that:

Pursuant to OAR 690-09-040, the proposed groundwater withdrawal will not have the potential to cause substantial interference with surface water.

In addition, the Groundwater/Hydrology Section has reported the water is likely to be available to supply the proposed use.

CONFLICTS WITH OTHER WATER RIGHTS:

There are no existing rights from this point of diversion. See permit conditions.

There are no existing water rights appurtenant to the lands described in the application. See permit conditions.

REPORT CONCLUSIONS:

Water in the amount of 0.356 cfs is likely available for the 12 month period of use. Therefore, the Director finds that water is available in sufficient amount and during periods which will reasonably support the proposed use.

THE PROPOSED WATER USE, AS CONDITIONED, SATISFIES THE REQUIREMENTS OF THIS TECHNICAL REVIEW.

This Report of Technical Review sets out the Director's technical analysis of the application. In addition to this technical analysis, the Director will evaluate this application to determine whether the proposed water use might impair or be detrimental to the public interest under the standards set out in ORS 537.170(5) and OAR 690-11-195. Matters relating to public interest in the proposed water use which are raised in objections will be evaluated following the 60-day objection period.

CONDITIONS:

All conditions previously imposed on permits granted for use of water for the same category of use from this source are to be imposed on this proposed use.

PERMIT CONDITIONS

Application: G-12685

The following conditions will apply to water use under the permit, and will appear in the permit.

1. Use of water under this permit is subject to all prior rights.
2. Period of allowed use: year round
3. Rate (cfs or gpm) and/or Volume (acre/feet or gallons) of use:
4. A regulating device shall be installed pursuant to ORS 540-310.
- 5.a A measuring device is not required at this time.
6. Water use development requirements:
 - A) Begin construction by (one year from issuance of permit).
 - B) Complete construction by October 1, 1995.
 - C) Completely apply the water to beneficial use by October 1, 1996.
7. Failure to comply with any of the provisions of the permit may result in action including, but not limited to, restrictions on the use, penalties, or cancellation of the permit.
8. The permit is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best practical technologies or conservation practices to achieve this end.
9. The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.
10. The well shall be constructed in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine water level elevation in the well at all times. When required by the department, the permittee shall install and maintain a weir, meter, or other suitable measuring device, and shall 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.

11. Prior to receiving a certificate of water right, the permit holder shall submit the results of a pump test meeting the department's standards, to the Water Resources Department. The Director may require water level or pump test results every ten years thereafter.
12. The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of containerized nursery plants, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of in ground nursery plants the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime of the year that the use is beneficial. For the irrigation of any other crop, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year.
13. The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.
14. If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

Water Watch OF OREGON

ATTACHMENT 7

By FAX 378-8130 and Regular Mail

RECEIVED

APR 29 1993

WATER RESOURCES DEPT
SALEM, OREGON

April 28, 1993

Oregon Water Resources Department
Water Rights Section
3850 Portland Road NE
Salem, Oregon 97310

Re: Objection to Technical Report for:
G-12685, Spencer, Coos Co., Cranberry Use

This application is the second application this month to be proposed for issuance in this area. This application, like application G-12692 requests ground water for cranberry operations in the Croft Lake Basin. We understand that numerous other applications for cranberry use are pending for this area. The cumulative impacts of these proposed uses are of great concern to WaterWatch. We have been in contact with residents in the area that have a concern about the capacity of the resource to accommodate all of these proposed uses.

Croft Lake and its surrounding tributaries and wetlands support a variety wildlife and fish life. Residents in the area have reported searun cutthroat trout in the lake and its tributaries. It is suspected that the trout spawn in the lakes tributaries. Croft lake is also a source of recreation in the area and area residents are concerned about maintaining the lakes existing water quality. The surrounding wetlands provide wildlife and other habitat and we understand that the Nature Conservancy has been involved in wetland protection efforts in the area.

We suggest that a meeting be held with the Department, WaterWatch and concerned citizens in the area to discuss the resource and the growing concerns about the capacity of the resource to accommodate further expansion of the cranberry industry. From the information contained in the technical report is it clear that little information is known about the hydrology of the water system in this area. We have been in contact with some researchers at an Oregon university who are embarking on a study of the area. This study should help the state better determine the impacts of these proposed uses on the ecosystem and wetlands in the Croft Lake Basin.

In addition, we submit the following objections pursuant to OAR 690-11-170:

♦ The Technical Report is Defective

The technical report fails to contain many of the elements and evaluations required in OAR 690-11-160(1). The following are specific areas of deficiency:

- The report fails to assess whether the proposed use is restricted by statute. OAR 690-11-160(1)(b).
- The report fails to assess the proposed use with respect to conditions on other permits from the same source or the same type of use. OAR 690-11-160(1)(c).
- The report fails to assess the use with respect to all applicable administrative rules. OAR 690-11-160. While the report does appear to include an assessment of the use pursuant to Division 9 rules, it did not assess the use with respect to the applicable basin plan.
- The report fails to evaluate potential conflicts with existing rights. OAR 690-11-160(1)(e).
- The report provides conclusions rather than evaluations of water availability. OAR 690-11-160(1)(f).
- The report does not provide an evaluation of whether the amount requested is necessary to meet the proposed use. OAR 690-11-160(1)(g).
- Finally, there is no evaluation of land use compatibility. OAR 690-11-160(1)(h).

♦ The Use As Proposed is Not in the Public Interest

The proposed use fails to pass the public interest considerations in ORS 537.620 and the policies of the Groundwater Act ORS 537.525(3), (6), (9), and (10). *See also*, OAR 690-11-195(3)(d), (4)(a), (4)(c)(A), (4)(d)(A), (4)(d)(B), (4)(e), and (4)(f). The proposed use may not be supported by existing groundwater supplies and is likely to deplete flows needed to for Croft Lake and other surface waters in the area. The South Coast Basin plan states:

Ground water is a significant factor in the maintenance of natural lakes in the dunes area. Extensive ground water development may affect lake water levels.
Finding 5.

The total extent of the ground water supply in the basin has not been determined. Existing data suggest ground water supplies are limited and would not support irrigation in most areas. Finding 19.

Marine terrace deposits and sediments of the Coquille formation are potential ground water sources for irrigation of cranberries in the Bandon area. Finding 20.

Marine terrace deposits in the Harbor area are capable of producing large quantities of water, but some areas are approaching levels of sustained yield. Finding 21.

Income from water-related recreation is a major contributor to the economy of the South Coast Basin. Finding 39.

The natural lakes, storage reservoirs and free-flowing streams support part of the water-based recreation use. Finding 40.

The water resources, wetlands and associated habitat are critical to the subsistence and propagation of wildlife in the Basin. Finding 42.

The basin plan admits that little is known about groundwater in the basin. However, the presence of wetlands indicates that a hydraulic connection exists between groundwater and surface waters in the area and that groundwater levels are very close to the surface of the ground. Reduction in groundwater contribution to wetlands and surface waters will decrease contributions to existing wetlands and decrease inflows into the lake. Thus, groundwater in this area is vital to the maintenance of lake levels, surface water flows, and the protection of public uses of water including wildlife, recreation and fish.

1. The failure to require water use measurement and reporting violate Oregon's policies and goals which call for the control of Oregon's waters. Thus the proposed use will impair and be detrimental to the public's interest.

When determining whether a proposed use is in the public interest the Commission is required to consider the "control of the waters of this state for all beneficial purposes" and the water resources policies in the statute. ORS 537.170(5)(c) and 537.170(5)(g). The Oregon Legislature has recognized that in order to maintain and increase the economic and general welfare of the people of Oregon the State must ensure "the proper utilization and control of the water resources of this state, and such use and control is therefore a matter of greatest concern and highest priority." ORS 536.220(1). The Legislature has also found that it is "in the interest of the public welfare" that activities be "designed to encourage, promote and secure the . . . control of" Oregon's water resources. ORS 536.220(2)(a).

The Groundwater Act of 1955 declares and finds that the right to control of Oregon's water "from all sources of water supply belongs to the public . . ." ORS 537.525. The Act

sets forth policies to ensure the "preservation of the public welfare, safety and health." *Id.* These policies call for the control of the groundwater resource in order to prevent depletion, to determine and maintain reasonably stable water levels, and to determine the characteristics of groundwater statewide. ORS 537.525. These statutory policies are reflected in the Commission's Groundwater Management Policy. OAR 690-410-010. When approving groundwater applications the State can impose conditions or limitations as needed to protect the "public welfare, safety and health." ORS 537.620(5).

Water use measurement and reporting requirements are essential if the State is to achieve these statutory policies and goals. These requirements generate critical information on actual water use and what is happening to the water resource. It also gives the Department information vital to management and enforcement efforts, it provides information necessary to "clean up" the Department's water right records and helps with future water use planning. *See Testimony of Martha O. Pagel, Before the Senate Joint Committee on Water Policy, 2/2/93, pgs. 1-5.*

Information about groundwater use and groundwater characteristics is especially crucial for management of the groundwater resource and surface water resources in the Croft Lake Basin. Those who benefit from using the resource should be called upon to provide information needed information about the resource. The permittee should be required to measure and report any use under this permit. In addition, the permittee should be required to measure and report water level elevations. This information is critical for resource protection and management. As a policy matter, WaterWatch believes that water use measurement and reporting should be required of every new permit issued in Oregon.

2. The use is likely to impair the public interest because it the use will interfere with surface waters in the Basin.

The groundwater resource in this area is likely connected to surface waters. However, the extent of the connection and the short and long term impacts of the connection on surface waters in the basin has not been determined. Oregon's ground water statute and the implementing rules require the Department to look at both short and long term impacts of groundwater use and to insure that the use will not interfere with surface waters. ORS 537.620(3), OAR 690-9, OAR 690-11-195(4)(a). This determination is particularly critical given the existing connection with surface waters, the relatively unpolluted condition of the surface waters, the public uses of the surface waters and the increasing pressure in this area to develop groundwater and surface water resources for irrigation of cranberry bogs.

There are at least four other pending applications pending for irrigation in this area. The Commission, in its basin plan has expressed concern over the ability of the resource to meet new demands. Until the required level of scientific certainty needed for decision making is determined and the information developed, this permit and other pending permits should probably not be issued. At the very least, this permit must be reviewed in conjunction with the other pending applications for irrigation in the area to determine the cumulative impacts on the resource of these proposed and any existing uses. It is not in the public interest to turn a blind eye to the cumulative effects of this industry on the resource in the basin.

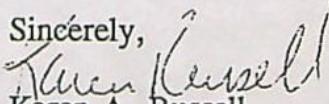
3. The use as proposed violates Oregon's statewide policies.

Oregon's Groundwater Management Policy requires that "(i)nterference between groundwater uses and competing groundwater and surface water uses . . . be prevented and/or controlled to protect the water resource and existing rights." OAR 690-410-010(1). The Policy also requires the State to manage groundwater and surface water conjunctively in order to protect the public's interest in the water resource and existing rights. OAR 690-410-010(2)(a). In addition, Oregon's Statewide Water Allocation Policy requires that groundwater use occur within the capacity of the resource and requires the State to protect Oregon's waters from overallocation by new uses of groundwater. OAR 690-410-070(1).

Allowing this use as proposed to go forward violates all these policies. The Department's failure to manage the ground and surface waters conjunctively in the Croft Lake basin will only exacerbate existing overallocation problems, degrade water quality, and will, particularly in the long run, impair existing surface water rights and public uses in the basin. It is bad public policy to continue issuing groundwater rights in the face of increasing doubts as to whether increased groundwater use is sustainable.

♦ Conclusion

We are open to discussion with the Department and the applicant on all of the issues raised in this objection letter. We are committed to working with the Department to cure the problems with the contents of this and other technical reports.

Sincerely,

Karen A. Russell
Legal Affairs Coordinator

V15011

October 14, 1993

Karen Russell, Assistant Director
WaterWatch of Oregon
921 SW Morrison, Ste. 438
Portland OR 97205

WATER
RESOURCES
DEPARTMENT

Re: Denial Objections Application File # G-12685

Dear Ms. Russell:

The Director of the Water Resources Department has reviewed your objections to the proposed water use reported in the Satisfactory Report of Technical Review announced on Application # G-12685 submitted by Harry G. Spencer. As a result of the Director's assessment, your objections are hereby denied.

Your objections state that the Technical Report is defective because the Report fails to contain many of the elements and evaluations required in OAR 690-11-160(1).

The rules of the Water Resources Commission require that the technical review analysis include the elements contained in OAR 690-11-160(1)(a)-(h). There is no requirement that the report of technical review include those elements. In order to maintain clarity and simplicity, a number of technical review factors included in the file checklists are not contained in the reports. A technical review report is a summary of the technical evaluation conducted on a water use application.

The Technical Review conducted on Application # G-12685 did include consideration of the elements specified in OAR 690-11-160(1) as is documented by the information contained in the records of the Department, including the application file.

You also allege the use as proposed is not in the public interest. These objections do not meet the requirements set out in OAR 690-11-170(1). Your objections do not specify particular public interest standards or set forth facts which would support allegations that the proposed water use is prohibited.

These objections include an allegation that the deficiency in measuring and reporting is not in the public interest. It is the policy of the Director to require measuring and reporting conditions on all permits issued. If a permit were to be issued for Application # G-12685, it would include the following measuring, recording and reporting condition:

Before water use may begin under this permit, the permittee shall



install a meter or other suitable measuring device as approved by the Director. The permittee shall maintain the meter or measuring device in good working order.

The permittee shall allow the watermaster access to the meter or measuring device; provided however, where the meter or measuring device is located within a private structure, the watermaster shall request access upon reasonable notice.

The Director may require the permittee to keep and maintain a record of the amount (volume) of water used and may require the permittee to report water use on a periodic schedule as established by the Director. In addition, the Director may require the permittee to report general water use information, the periods of water use and the place and nature of use under the permit. The Director may provide opportunity for the permittee to submit alternative reporting procedures for review and approval.

You have also alleged that the proposed water use will interfere with the surface waters of the basin. The records of the Department show there is sufficient evidence to support the determination that the proposed groundwater use will not have the potential for substantial interference with the nearest surface water source. Any permit issued on Application # G-12685 would contain the following condition:

If substantial interference with a senior water right occurs due to withdrawal from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

Additional comments or amendments to proposed conditions may be made, at the discretion of the Director, at any time prior to the decision to issue a permit or recommend rejection of the application. No permit will be issued for an application which cannot be conditioned to adequately protect the resource and senior water rights.

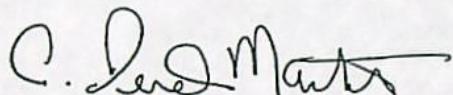
The Director has determined that your objections do not contain facts which establish that the Technical Review was defective nor do they identify elements of the proposed water use that may impair or be detrimental to the public interest. Therefore, the Director has denied your objections.

You may protest this denial of your objections. You have thirty (30) days from the date of this letter to file a protest. Your protest must comply with the standards set out in the Oregon Administrative Rules, Chapter 690, Division Two, Sections 030 through 080 (OAR 690-02-030 through 080).

Send your protest by regular mail or deliver it in person. Your protest must be received by the Water Resources Department in Salem, Oregon, no later than 5:00pm on or before November 15, 1993. Your protest must be in proper form and accompanied by a fee of \$25.

Protests received on time and in proper form as prescribed by the rules cited above will be referred to the Water Resources Commission for its review.

Sincerely,



A. Reed Marbut, Administrator
Water Rights and Adjudications Division

cc: Harry G. Spencer
Encl.: WaterWatch 4/28/93 Objections

Hand Delivered

November 15, 1993

Water Rights Section
Water Resources Department
3850 Portland Road NE
Salem, Oregon 97310

Re: Protest of Application File G-12685, Spencer, Coos Co.,
Cranberry Use & Nursery Operations

Dear Water Rights Section:

On April 28, 1993, WaterWatch filed objections to Mr. Spencer's proposed use which raised issues relating to deficiencies in the technical report for this application as well as public interest issues. On October 14, 1993, WaterWatch received the Department's denial of WaterWatch's objections. As we stated in our earlier filed protest of application G-12692, the pressure to develop the water resources in this area for economic gains for the cranberry industry must be balanced with the state's duty to protect Oregon's precious coastal resources. WaterWatch is not opposed to economic growth, as long as that growth is accomplished within the capacity of the water resource, and in a way that protects public uses of water. These public uses of water should be protected not only because we have a duty to act responsibly toward other creatures on this earth, but also because these resources also provide economic benefits for Oregon. For the reasons outlined below, and for other reasons, we file this protest and a \$25 fee pursuant to OAR 690-11-175(5) and 690-02-030 to 080:

A. Facts

Mr. Spencer's application is for use of .356 cfs of water from wells in the South Coast Basin. The proposed wells are located within 1/4 mile surface waters (Conner Creek) next to and within existing wetlands. This application is one of over 20 pending applications for a total of over 15 cfs of water for proposed cranberry bogs in the Bandon area.

The Resource

The proposed use is located in the Croft Lake Basin in the South Coast. Croft Lake is a major tributary of the New River. *New River, Area of Critical Environmental Concern*, June 1989, Bureau of Land Management at 2 (hereinafter BLM). The New River is a unique estuarine and freshwater ecosystem utilized by a wide diversity of fish and wildlife. According to the BLM's study of the New River this River:

supports a unique mix of wildlife, fisheries, botanical, and cultural resources found in association with few other coastal rivers in the pacific Northwest. Four species of wildlife that use the area are designated as either threatened or endangered on state or federal lists. One plant species has been identified as a candidate for federal listing, and is designated as threatened on the state list. A number of prehistoric cultural sites have been found along the banks of this drainage, and the river itself is thought to provide critical rearing habitat for juvenile salmonides.

... New River has received special attention from a variety of private, state, and federal conservation interests. The Nature Conservancy has examined New River as a candidate area for their conservation programs. . . the Oregon Natural Resources Council considers New River to be the single most important estuary in Oregon that currently is not under any comprehensive form of management. . . New River also has been identified by the U.S. Fish and Wildlife Service as a candidate site for establishing a National Wildlife Refuge. . . The Oregon Department of Fish and Wildlife has identified the area as critical habitat for the western snowy plover. . . (S)ince 1983, BLM has designated its ownership as an Area of Critical Environmental Concern (ACEC), giving the area special recognition and status for improved management of the unique resources that are present. . .

BLM at 1. Since publication of the BLM's report, the western snowy plover has listed as "threatened" under the Federal Endangered Species Act and nine additional wildlife species that utilize the New River system are either listed under the federal act, or are candidates for listing.¹

The New River supports chinook salmon, coho and other fish populations. Since this BLM report was written, coastal coho populations, which utilize coastal streams such as the New River, have been petitioned for listing under the federal Endangered Species Act. Coastal stocks of fall chinook and coastal cutthroat trout are identified by the state as species of concern. The New River provides important habitat for these species. For example, some of the best pools for fish rearing are found in the New River, below the rivers confluence with Croft Lake. *BLM* at 30. However, downstream fish migration coincides with periods of low flows which can result in high fish mortality. *BLM* at 30. For instance, juveniles trapped in isolated pools in the river:

may be subject to predation, suffocation, and heat stress. Local ranchers have observed great blue herons and kingfishers feeding on these juveniles in the shallower, isolated pools over a period of days in which the channel remained dry.

BLM at 30.

In addition to the resources identified in BLM's plan, Croft Lake and its tributaries provide habitat for a multitude of other fish and wildlife resources, including sensitive populations of searun cutthroat. Croft Lake and it's tributaries also provide recreational benefits to residents living and vacationing in the area. Streamflows into and out of the Lake maintain the water quality that is essential for these public uses of the lake.

The BLM has identified the Croft Lake area as part of the management area in the ACEC and has looked at purchasing access to the lake. *BLM* at 1 and Table 1. However, Croft lake has been shrinking over the past several years. *BLM* at 2. Existing use of water for irrigation has had significant effects on the current habitat of the New River and it's tributaries. *BLM* at 17.

The BLM has recognized that actions by state agencies, such as the Water Resource Commission have significant effects on management within this ACEC. *BLM* at 7. Commission actions on protecting minimum flows and other water use policies greatly affect the viability of this ecosystem. One of the management objectives identified by the BLM is to maintain minimum flows because:

¹ These include the Brown Pelican, Peregrine Falcon, Leatherback Sea Turtle, Aleutian Canada Goose, American Bald Eagle, Loggerhead Sea Turtle, Pacific Ridley Sea Turtle, Letherback Sea Turtle, and the red legged frog.

New River provides important rearing habitat for juvenile salmonids during summer. Channel drying during summer may coincide with downstream migration of juveniles. This may result in high mortality if juveniles become trapped in isolated pools, where they are subject to predation, temperature stress, and suffocation. Losses of juveniles during migration may preclude full use of more stable rearing habitat present downstream in estuarine portions of the ACEC.

Lack of water in the middle section of New River during summer also precludes full use of marshlands by waterfowl. During most years, water is absent from early July to early September in the areas immediately south of the ACEC. This eliminates potential habitat for rearing broods, in turn reducing the prey available to peregrine falcons and bald eagles.

BLM at 35.

Ground water in the area contributes to surface water flows needed for the above mentioned fish and wildlife species. However, the Commission's South Coast Basin Program admits that little is known about ground water in the basin and expresses doubt as to the ability of ground water supplies to support irrigation. Basin Program Finding 5, 19. Increased ground water withdrawals, under existing water rights have caused declines in both ground and surface water levels. This past summer, water level in domestic wells used by BLM and well levels at Storm Ranch dropped dramatically as a result of pumping of ground water for cranberry bogs.

The Commission's Program also recognizes that ground water is a significant factor in the maintenance of natural lakes in the basin. Program Finding 5. Ground water also contributes to wetlands and other surface waters that provide critical habitat for wildlife and fish in the basin. Finding 42. The Program recognizes the importance of lakes and streams to recreation use in the basin, a major contributor to the economy of the South Coast Basin. Program Finding 39, 40. Ground water and surface water also contribute to wetlands which are critical to the ecological integrity of the area. To date, instream water rights have been set for Croft lake or it's feeder streams, Conner and Davis Creek, or the New River. There is a pending instream water right for Floras Creek, a tributary of the New River, with a senior priority date of 11/08/90 (Mr. Spencer's application date is 10/4/91).

Proposed Use

Mr. Spencer proposes to use approximately .178 cfs for cranberry use and .1 cfs for nursery operations from two wells yearround. These wells produce water from an unconfined aquifer within a quarter mile of Conner Creek, a tributary to Croft Lake. Memo to file from Mike Zwart, October 6, 1992 and Application. The Department has concluded that "Conner Creek is likely in hydraulic connection with, and is a discharge area for this

water table." Id. There has been no analysis as to the exact amount of streamflow depletion these wells will have on Conner Creek. In addition, there are no actual measurements of streamflows in Conner Creek. WRD estimated streamflows from a model using one years worth of measurements taken at Ferry Creek. Review of this estimate by the Water Rights Section assumed that existing rights were taken into account. According to the model estimates, flows in Conner Creek are below 2 cfs during the month of May through September.

In addition to withdrawing water from the ground and surface waters, the proposed use will change the drainage patterns in the area, effecting the hydrology of the system. It will also likely involve removal of diverse native plant life found in wetlands. The proposed use will also involve the application of fertilizers and other chemicals to aid in cranberry growth. Runoff from the bogs into surface waters, and/or percolation of the chemicals into ground water will pollute waters in the area, adversely affecting public use of the water resource.

Summary

This proposed use will deplete ground and surface water quantity and water quality needed to support public uses of this sensitive coastal river system. This application is the second of many applications for use in this area. Cumulatively these applications propose to divert large quantities of water, change drainage patterns over a large area and introduce additional chemicals and fertilizers into this system. To date, there is no legal protection for flows needed to support the fish and wildlife that rely on this unique system for survival. There is also no protection for the recreational values of the resource. However, this proposed use, and others waiting to be approved, will adversely effect both individually and cumulatively on this important coastal system.

B. Relief Requested

WaterWatch requests that this application be denied, or in the alternative, sent to contested case. If this application is not denied outright, any proceeding should require that further information be developed about the characteristics of the ground water and surface waters in the area prior to the commencement of a contested case. If a contested case is scheduled, we request that review of this application be consolidated with review of other pending applications for cranberry use in this area.

C. Name and address of Persons having Interest in Proceeding

The following people are known to WaterWatch as having an interest in this proceeding:

Harry G. Spencer
P.O. Box 291
Langlois, OR 97450

Alfred C. Walsh, Jr.
Trustee owner of 220 acres surrounding Croft Lake
280 Collier
P.O. Box 99
Coquille, Oregon 97423

D. Legal Authority and Basis for Claim

This protest is filed pursuant to OAR 690-11-175(5) and 690-01-030 to 080. The Ground Water Act of 1955 requires the Department/Commission to deny permit applications unless the agency can ensure that the "public welfare, safety and health" is protected. ORS 537.620. The policies of the Ground Water Act require, among other things, that use of water be without waste and within the capacity of the resource and that "reasonably stable ground water levels be determined and maintained." ORS 537.525(3), (7). The statute also calls for protection of ground water supplies for a variety of uses (including recreation) and calls for the determination of ground water characteristics. ORS 537.525(5)(6). The Division 11, Division 9, Division 400 and Division 410 rules further refine the public welfare standards set out in the statute.

When considering this application, the agency has a duty to ensure that the proposed use will not harm either the quantity or quality of ground and surface waters. ORS 537.17-(5)(a) & (c), ORS 537.525(9), (11), ORS 468B.155, and ORS 468B.015. There was inadequate review of the effects on water quantity and no review of the effects on water quality. New uses of water must also be scrutinized for possible impacts on wetlands. ORS 196.669, ORS 196.672 (1). No such scrutiny has occurred.

The federal and state Endangered Species Acts also place a burden on the Commission. Under the state act the Commission is required to consult with the Oregon Department of Fish and Wildlife to ensure that any action taken by the Commission is consistent with ODFW programs to conserve the species, or, if no plan is in place, that the action will not "reduce the likelihood of the survival or recovery" of the state listed species. ORS 496.182(2). Under the federal Act, there is a prohibition against "taking" of endangered species. 16 USCA § 1538(a)(1)(B). Listing under these Acts is a sign, not only of the health of a particular species, but also a warning signal for the health of the human environment.

The proposed use will harm the public interest in the ground and surface water resource because:

- given the proximity of the wells, the presence of an unconfined aquifer and the hydraulic connection, OAR 690-090-030(4)(a). requires an assumption of substantial interference. There are two different staff determinations in the

application file which are apparently based on the same data.² The first determination concluded there was potential for substantial interference. See Memo to File G-12685 from Sarah Meyer, 12/5/91. The subsequent determination back tracked slightly, although not completely, and "tentatively" concluded that the proposed use "may have low potential for substantial interference". Memo to File from Mike Zwart, 10/6/92. Staff acknowledged that this conclusion was "a tentative conclusion, and strong permit conditions were suggested." Memo to Carol Spence from Mike Zwart, 1/16/93.

However, the permit conditions do nothing to eliminate interference or protect the public uses of the surface water resource. In addition, Department staff acknowledged that the data used to make this tentative determination failed to contain "pre-test water level data", had "minimal water level recovery data," and required "assumptions to be made regarding test conditions." Memo to File from Mike Zwart, 10/6/92. Thus, the information provided by the applicant is insufficient to rebut this assumption.

In addition, there has been no determination as to the exact extent of hydraulic connection as required in ORS 690-09. Given the fragile ecosystem and the low flows in this area, the proposed use, will have effects on the hydrology of the system, both in terms of ground water withdrawals and in terms of changes in drainage patterns. This use, in connection with other pending applications and existing permitted uses will significantly impair, both on the ground water resource and the surface waters.

- There is insufficient water in the system to support this proposed use together with other pending applications, existing water rights and other public uses of water in this area. OAR 690-11-195(3).
- The water availability analysis was defective. OAR 690-11-160(1)(f). The modeled flows for Conner Creeks were based upon extensions of only one years worth of data from a different Creek. In addition, the analysis was assumed to have taken only existing water rights into account. Existing water rights total approximately 2.16 cfs, essentially all of the modeled streamflows from April to October, and a large percentage of modeled flows during the rest of the year. Given the importance of this stream system, and the already existing overappropriation, these estimates are inadequate to protect the publics interest in the resource.

² After the initial review, the applicant submitted additional data on the issue of confinement. The Department rejected that data and no additional data was submitted on the issue of interference. See Memo to File from Michael Zwart, 10/6/92

- This use will harm designated cultural areas and the BLM's Area of Critical Environmental Concern, water quality, fish, aquatic life, wildlife, and recreational use in the area. OAR 690-11-195(4)(A), (d), (e), (f), (h).
- The Department failed to consult with the Oregon Department of Fish and Wildlife as required by law. In addition, there was no analysis of the effects of the proposed use on harm fish and wildlife listed under the state and federal endangered species acts.
- The proposed conditions fail to protect water resources needed for water quality, fish, aquatic life, wildlife and recreational uses and designated cultural and resource protection areas. OAR 690-11-195(4)(c)(A), (d), (e), (f), (h). For example, requiring this use to be shut off if it interferes with senior rights does nothing to protect these public uses which do not have senior water rights.
- The proposed use is contrary to ground water policies articulated in the statutes cited above and in the Commission's Ground Water Management Policy which requires prevention of ground water/surface water interference and calls for conjunctive management of the resource to protect the public's interest in the resource. OAR 690-410-010. The proposed use is contrary to other Oregon policies including the Statewide Allocation Policy which requires use within the capacity of the resource and requires that instream flow needs be considered when reviewing applications for new uses. OAR 690-410-070. The proposed use is contrary to other statewide policies including those that require protection of native fish, water quality, wetlands, and other public uses of water and call for integrated and coordinated water management. ORS 496.435, OAR 690-410-030, OAR 690-410-070, ORS 536.220(1), (2) and statutes and rules cited above.

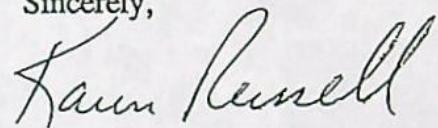
In addition, the following requirements of Division 11 and other procedural requirements were not followed:

- The Department processed this application out of order, contrary to Commission direction.
- The technical report failed to contain many of the elements and evaluations required in OAR 690-11-160(1). The Department's response in the denial letter, these elements were not included in the report in order to "maintain clarity and simplicity" is not supported in the rules. The purpose of the technical report is to give interested parties information that is crucial in order to evaluate whether or not the application is of concern.

- The Department's denial stated that the Director may "at any time prior to the decision to issue" this permit make "additional comments or amendments to" the proposed conditions for this application. This statement essentially makes it impossible for an interested party to determine whether or not their concerns have been addressed - or - if their concerns are addressed, whether or not their concerns will continue to be addressed if and when a permit is issued. This "moving target" approach to public participation does not provide the public with the ability to participate meaningfully in water allocation decisions. There is nothing in the rules that allow the Department to make changes to conditions without notice to interested parties. While we agree that as new information comes forward, the agency has a duty to ensure that conditions are modified to protect the resource, the Department should give parties in the proceeding notice and an opportunity to comment on any changes.

For the reasons outlined above, we file this protest.

Sincerely,



Karen Russell
Assistant Director

c. Burchfield, ODFW

Certificate of Service

I certify that on this 15th day of November, 1993, a copy of WaterWatch's Protest of Application G-12685 was served on each of the following by first class mail, postage paid, in the United States Mail from Portland, Oregon, enclosed in a sealed envelope and addressed as follows:

Harry G. Spencer
P.O. Box 291
Langlois, OR 97450

Alfred C. Walsh, Jr.
280 Collier
P.O. Box 99
Coquille, Oregon 97423

Signed this 15 day of November, 1993

Karen Russell
Karen Russell

PUBLIC INTEREST REVIEW

The proposed water use described in Application #G-12685 has been evaluated according to the public interest standards set out in ORS 537.170 and OAR 690-11-195.

The Application requested the use of 0.357 cfs from ~~the/a~~
~~two wells tributary to/within the South Coast Basin~~
~~for the purpose(s) of cranberry use and nursery operations.~~
The Technical Review Report limits the proposed use to
~~0.357 cfs of water from two wells for cranberry use on 12 acres and~~
~~nursery operations on 4.0 acres~~

The proposed use described in Application #G-12685 is not within a category required to be submitted to the Commission.

The Director of the Water Resources Department has evaluated the Application for the proposed water use and made the following public interest determination.

TECHNICAL REVIEW

If satisfactory-

Water use Application #G-12685 received a Satisfactory Report of Technical Review.

The Technical Review revealed that the proposed water use:

- a)-is not prohibited by statute or scenic waterway criteria;
- b)-is a classified use under the applicable basin program or an application for the use has been filed under ORS 536.295 and OAR 690 Division 82;
- c)-is consistent with conditions previously imposed by the Commission on appropriations from the same source;
- d)-will not conflict with (an) existing water right(s);
- e)-is supported by an available source of water.

If unsatisfactory-

Water use Application # _____ received an Unsatisfactory Report of Technical Review.

The Technical Review conducted according to OAR 690-11-160 on the water use application revealed that the proposed water use:

- a)-is prohibited by statute or scenic waterway criteria;
- b)-is not a classified use under the applicable basin program and an application for the use has not been filed under ORS 536.295 and OAR 690, Division 82;
- c)-cannot be modified to be consistent with conditions previously imposed by the Commission on appropriations from the same source;
- d)-would conflict with (an) existing water right(s), or
- e)-water is not available from the source to support the proposed water use.

As the result of the above finding based on the Technical Review conducted on this water use Application, the Director concluded that the proposed water use would impair or be detrimental to the public interest.

Na

PUBLIC INTEREST REVIEW
CHECKLIST

The Director of the Water Resources Department has evaluated the proposed water use, as described in Application #G-12685, in light of current and planned uses and reasonably anticipated future demands for water from the water source as established in the record.

The evaluation has recognized known beneficial uses of water, including but not limited to the categories described in OAR 690-11-195(3)(a)-(d).

The Director has reviewed the elements of the proposed water use and has based the public interest determination on evidence in the record which included the following:

I. Existing claims to water from the same source.

SB There are no conflicts with existing claims to water from the same source as is documented in the Report of Technical Review.

Comment: _____

II. Land use matters.

SB The local government where the proposed water use is located has acknowledged receipt of the Land Use Information Form and has filed no objections to the proposed appropriation.

Comment: _____

SB

Public notice of the proposed water use was sent to all local governments which have requested such notice and none of those local governments have filed objections to the proposed water use.

Comment: _____

SB

There is nothing in the record to indicate the proposed water use is incompatible with Statewide Planning Goals or local comprehensive plans.

Comment: _____

n/a

If local government approval has not been granted, there is nothing in the record to indicate conditions cannot be placed on the proposed water use to require local land use approval prior to initiation of the use.

Comment: _____

n/a

An applicant for municipal water use has submitted information showing the proposed water use is compatible with comprehensive plan policies concerning urban services, urban growth boundaries, and Public Facilities Plans.

Comment: _____

III. Identified environmental concerns.

SB

The proposed water use does not appropriate water from any water body listed to receive Total Maximum Daily Loads and therefore, the water body has not been defined as water quality limited according to Section 303(d)(1) of the federal Clean Water Act according to the information supplied by the Oregon Department of Environmental Quality.

Comment: _____

IV. The character and extent of other natural resources which are present in the water source basin.

SB

The Oregon Department of Fish and Wildlife (ODFW) has been notified of the proposed water use and has made no objections regarding fish and other aquatic and wildlife species and populations.

Comment: _____

SB

There are no listed threatened or endangered species in the water source according to the information supplied by the Oregon Department of Fish and Wildlife.

Comment: _____

V. Riparian characteristics.

SB

There is nothing in the record to indicate the proposed use is likely to be detrimental to the riparian characteristics of the water source. This riparian review is not applicable to groundwater sources.

Comment: _____

VI. Recreational use and potential of the water source and its basin area.

SB

There is nothing in the record to indicate a conflict with known or reasonably anticipated recreational use.

Comment: _____

VII. Agricultural potential of the area.

SB

There is nothing in the record to indicate the proposed water use will conflict with known or reasonably anticipated agricultural practices.

Comment: _____

VIII. Designated historic, cultural, or natural resource protection areas.

88 There is nothing in the record to indicate any conflict with any known or reasonably anticipated historic, cultural, or natural resource designations.

Comment: _____

IX. Identified health or safety requirements.

88 There nothing in the record to indicate any identified health and safety requirements.

Comment: _____

PUBLIC INTEREST REVIEW
FINDINGS AND CONCLUSIONS

This public interest determination has considered the following standards as set out in ORS 537.170(5):

- a) The conservation of the highest use of the water for all purposes, including irrigation, domestic use, municipal water supply, power development, public recreation, protection of commercial and game fishing and wildlife, fire protection, mining, industrial purposes, navigation, scenic attraction or any other beneficial use to which the water may be applied for which it may have a special value to the public.
- b) The maximum economic development of the waters involved.
- c) The control of the waters of this state for all beneficial purposes, including drainage, sanitation and flood control.
- d) The amount of waters available for appropriation for beneficial use.
- e) The prevention of wasteful, uneconomic, impracticable or unreasonable use of the waters involved.
- f) All vested and inchoate rights to the waters of this state or to the use of the waters of this state, and the means necessary to protect such rights.
- g) The state water resources policy formulated under ORS 536.295 to 536.350 and 537.505 to 537.525.

The Director of the Water Resources Department, pursuant to OAR 690-11-185(4), has considered the facts set forth in the Application and its supporting data, the Director's Report of Technical Review and any objections which met the requirements of OAR 690-11-170(1).

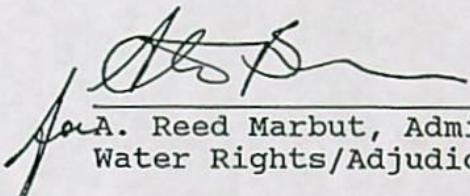
The Director of the Water Resources Department has evaluated the proposed water use with respect to the information in the record

of the Department and has made the following public interest determination.

The Director has determined that the proposed water use described in Application # G-12685:

 WILL IMPAIR OR BE DETRIMENTAL TO THE PUBLIC INTEREST and therefore, the Director hereby proposes rejection of the application and shall schedule a contested case hearing.

 WILL NOT IMPAIR OR BE DETRIMENTAL TO THE PUBLIC INTEREST and therefore, the Director shall issue a water use permit with appropriate conditions.


A. Reed Marbut, Administrator
Water Rights/Adjudication Division

Dated : September 1, 1994

OAR Chapter 690, Division 11 Excerpts

Public Interest Review

690-11-185 (1) Each water use application shall be evaluated to determine whether the proposed use may impair or be detrimental to the public interest according to the standards described in ORS 537.170 and OAR 690-11-195.

(2) The following categories of applications shall be submitted to the Commission for determination as to whether the proposed water use may impair or be detrimental to the public interest:

(a) Appropriations for consumptive or out-of-stream uses of water in amounts greater than ten cubic feet per second (cfs);

(b) Diversions or appropriation of waters from basin of origin pursuant to ORS 537.801 to 537.850;

(c) Dams greater than 25 feet in height or impounding more than 100 acre-feet of water;

(d) Conditional uses under a basin program;

(e) Artificial groundwater recharge;

(f) Applications for use of water from a surface water source or its tributaries where the Department has been notified of the presence of a species listed as threatened or endangered under either the United States or Oregon Endangered Species Act which may be adversely affected by the water uses identified in the application; or

(g) Applications on which protests have been filed pursuant to OAR 690-11-175(5).

(3) The Director shall evaluate all applications for water use not identified in section (2) of this rule to determine whether the proposed water use may impair or be detrimental to the public interest.

(4) In determining whether the proposed water use may impair or be detrimental to the public interest under the standards set out in ORS 537.170(5) and OAR 690-11-195, the Commission, in cases described in section (2) of this rule, or the Director, in cases described in section (3) of this rule, shall consider the facts set forth in the following documents:

(a) The application and supporting data;

(b) The Director's report of technical review;

(c) Objection(s) that meet the requirements of OAR 690-11-170(1); and

(d) Protest(s) filed pursuant to OAR 690-11-175(5) and (6).

(5) If no objection or protest has been filed, the Commission shall not receive public testimony during its review of the proposed water use, unless the testimony relates to an issue that could not have been identified in an objection or protest.

(6) If an objection or protest has been timely filed, the Commission may, but is not required to, hear public testimony during its review of the proposed water use.

(7) If the Commission, in cases described in section (2) of this rule, or the Director, in cases described in section (3) of this rule, determines that the proposed water use described in the application may impair or be detrimental to the public interest, the Commission or Director shall schedule a contested case hearing. Such hearing shall be conducted according to the provisions for a contested case hearing under ORS 183.413 to 183.497 and OAR Chapter 690, Division 2.

(8) If the Commission, in cases described in section (2) of this rule, or the Director, in cases described in section (3) of this rule, determines that the proposed water use described in the application will impair or be detrimental to the public interest, the Commission or Director shall propose rejection and schedule a contested case hearing. Such hearing shall be conducted according to the provisions for a contested case hearing under ORS 183.413 to 183.497 and OAR Chapter 690, Division 2.

(9) If the Commission, in cases described in section (2) of this rule, or the Director, in cases described in section (3) of this rule, finds that the proposed water use will not impair or be detrimental to the public interest, a water use permit shall be issued.

Stat. Auth.: ORS 536.025, 536.027, 536.220, 536.300, 536.310, 537.338 & 537.356
- 537.358

Hist.: WRD 9-1992, f. & cert. ef. 7-1-92

Standards for Public Interest Review

690-11-195 (1) The Commission, in cases described in OAR 690-11-185(2), or the Director, in cases described in OAR 690-11-185(3), shall weigh the effect of the proposed water use on each of the standards set out in ORS 537.170(5) to assess impairment or detriment to the public interest.

(2) The Commission, in cases described in OAR 690-11-185(2), or the Director, in cases described in OAR 690-11-185(3), shall conclude that a proposed water use will impair or be detrimental to the public interest under ORS 537.170(5) if the technical review conducted under OAR 690-11-160 reveals that:

(a) The proposed water use is prohibited by statute or scenic waterway criteria;

(b) The proposed water use is not a classified use under the applicable basin program and an application for the use has not been filed under ORS 536.295 and OAR Chapter 690, Division 82;

(c) The proposed water use cannot be modified to be consistent with conditions previously imposed by the Commission on appropriations from the same source;

(d) The proposed water use would conflict with existing water right; or

(e) Water is not available from the source to support the proposed water use.

(3) In applying the standards set forth in ORS 537.170(5), the Commission, in cases described in OAR690-11-185(2), or the Director, in cases described in OAR690-11-185(3), shall evaluate the proposed water use in light of current uses, planned uses and reasonably anticipated future demands for water from the source as established in the record. The evaluation shall recognize all known beneficial uses of water, including but not limited to the following categories:

- (a) Population growth demands for domestic and municipal uses;
- (b) Economic development for agriculture, navigation, manufacturing, industry, power generation, commercial fishing, forestry and mining;
- (c) Health and safety requirements for sanitation, drainage, flood control, and fire protection; and
- (d) Public values and uses for recreation, pollution abatement, fish and wildlife resources, and scenic waterway protection.

(4) The public interest determination shall be based on evidence which may include, but is not limited to, the following:

- (a) Existing claims to water from the same source, including but not limited to:
 - (A) Existing decreed rights;
 - (B) Existing certified rights;
 - (C) Existing permits;
 - (D) Pending applications;
 - (E) Existing vested or inchoate rights of record;
 - (F) Indian reserved rights or claims; and
 - (G) Federal reserved rights or claims.
- (b) Land use goals, comprehensive plans, or other land use matters. Public interest determinations relating to land use may be based on, but not necessarily limited to:
 - (A) Statewide Planning Goals;
 - (B) Comprehensive Land Use Plans, including plan assumptions and policies;
 - (C) Public Facilities Plans;
 - (D) Current, planned, or reasonably anticipated uses for land;
 - (E) Local government administrative provisions, regulations, or approvals including zoning designations, filed land division plans or plats, or issued building permits;
 - (F) Projected changes in population, industrial or manufacturing bases, or economic trends; or
 - (G) Land management plans prepared by federal or state agencies.
- (c) Identified environmental concerns, including but not limited to:
 - (A) Water quality;
 - (B) Air pollution;
 - (C) Proximity of urban or transportation congestion; and
 - (D) Soil contamination.
- (d) Character and extent of other natural resources which are present in the water source basin, including but not limited to:
 - (A) Fish and other aquatic species and population;
 - (B) Wildlife species and population;
 - (C) Timber and other woody plant cover;
 - (D) Grasses and forbs;
 - (E) Minerals; and
 - (F) Geothermal energy.
- (e) Riparian and aquatic fauna and flora characteristics;
- (f) Recreational use and potential of the water source and its basin area;
- (g) Agricultural potential of the area, including but not limited to an assessment of the following:
 - (A) Crop or livestock production potential including dairy operation;
 - (B) Soil, topographic, and climatic characteristics;
 - (C) Transportation and market access; and
 - (D) Community and support facilities of the area.
- (h) Designated historic, cultural, or natural resource protection areas; and
- (i) Identified health or safety requirements.

Stat. Auth.: ORS 536.025, 536.027, 536.220, 536.300, 536.310, 537.338 & 537.356
- 537.358
Hist.: WRD 9-1992, f. & cert. ef. 7-1-92

6-12658

Oregon

WATER
RESOURCES
DEPARTMENT

August 23, 1994

Ronald S. Yockim, Esq.
Benjamin Lombard Jr., Esq.
P.O. Box 218
Roseburg, OR 97470

RE: Water Right Applications G-12685 (Spencer) and
R-71841 and 71842 (Fraser)

Dear Messrs Yockim and Lombard:

Please accept my apology for the delay in response to your correspondence on the status of the above referenced applications. As you know, there are a number of pending applications for use of water for cranberry production in the New River Basin. Before I address the Spencer and Fraser applications, I would like to describe our plan for completion of processing all of these applications.

There are 21 applications filed by 12 applicants on tributaries of the New River above Croft Lake. We have completed technical reviews on 19 of the 21 applications. Objections have been filed on all 19 of the technical reviews. We have denied four of the objections filed against the 19 applications. All four of these denials have been protested.

Of these 21 applications, eight are groundwater applications, six are reservoir applications and seven are secondary applications for use of the reservoir water. Of the two groundwater applications, six were found to have the potential for substantial interference with surface water in the New River drainage and the other two were found not to have the potential for substantial interference with surface water.

Of the four that have received protests, we propose to present the two that do not have the potential for substantial interference with surface water to the Water Resources Commission at its September 8 - 9, 1994 meeting. These applications are G-12685 (the above-referenced Spencer groundwater application), and G-12692 in the name of Warnock.



Ronald S. Yockim, Esq.
Benjamin Lombard, Esq.
August 23, 1994
Page Two

As to all the other applications, we propose to offer alternative dispute resolution to these applicants to resolve a number of issues related to further out-of-stream appropriation of water in the New River Basin.

The objections raise number of issues concerning the proposed water uses described in the technical reviews. I will not attempt to recite all of the precise issues here; however, there are a number of issues raised by the objectors that we feel can be addressed in a dispute resolution forum. In addition, the United States Bureau of Land Management issued its Draft Management Plan for the New River Area of Critical Environmental Concern (ACEC). This Plan describes a number of water related environmental issues that should be evaluated as a part of our application review procedure. We feel this plan can serve as a valuable tool during the dispute resolution discussions.

As you will recall, the dispute resolution procedure set out in our Division 11 rules is entirely voluntary (I have enclosed a copy of our Division 11 rules for your convenience). We intend to offer this process to all of the applicants who propose to use either surface water or groundwater that has the potential for surface water interference. Al Cook, our Southwest Region Manager, will be the Department's contact person for the dispute resolution process. For those that wish to participate in the dispute resolution process, Mr. Cook will set up discussion schedules to meet the needs of the applicants and interested parties. Hopefully, we can resolve most of the issues and move forward on the applications without the need for the formal protest procedure.

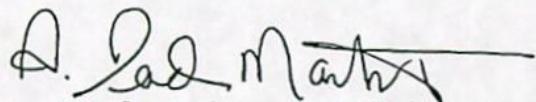
We envision the discussion parties will include the applicants, the objectors, the Bureau of Land Management and a representative of the Department. If other individuals should be included in the discussions to insure complete resolution of all issues we should be sure to identify such parties before we begin discussions.

Ronald S. Yockim, Esq.
Benjamin Lombard, Esq.
August 23, 1994
Page Three

In conclusion, Mr. Spencer's application (G-12685) is scheduled for the September 8 - 9, 1994 Water Resources Commission meeting. We will forward a copy of the Commission staff report to you as soon as it is prepared. The Fraser applications (R-71841 and 71842) are not scheduled for the September Commission meeting. Mr. Fraser will be offered alternative dispute resolution.

If you have further questions, please give me a call.

Sincerely,



A. Reed Marbut, Administrator
Water Rights/Adjudication Division

ARM/dpc

Enclosure

cc: Harry G. Spencer
Russell Fraser
Roderick Fraser
Stephen D. Warnock
Al Cook, OWRD

Oregon

WATER
RESOURCES
DEPARTMENT

December 27, 1991

Harry G. Spencer
P.O. Box 291
Langlois, Oregon 97450

REFERENCE: File G-12685

Your application for a permit to use the public waters has been reviewed.

A "draft" permit is enclosed for your consideration. In the preparation of this draft permit, our staff has considered any public or agency comments received, as well as all pertinent Oregon laws, administrative rules and Commission policies.

We are now ready to recommend the issuance of a permit approving your request to use water. The draft permit enclosed contains all of the conditions and limitations that would appear on your permit, if issued.

Please review the draft permit carefully. If you are satisfied that the draft adequately describes your proposed use of water, and the terms are acceptable to you, please sign the draft copy in the space(s) provided and return it to us within 30 days. When we receive your signed draft, we will issue your permit as quickly as possible.

If you do not agree with, or cannot accept one or more of the terms or conditions as stated in the enclosed draft, you should advise us immediately. In this event, we will then advise you of any options which may be available to you.

If you have any questions, please contact the Water Rights Section at 378-3066.

409

enclosure



3850 Portland Rd NE
Salem, OR 97310
(503) 378-3739
FAX (503) 378-8130

STATE OF OREGON

COUNTY OF COOS

PERMIT TO APPROPRIATE THE PUBLIC WATERS

DRAFT

THIS PERMIT IS HEREBY ISSUED TO

HARRY G. SPENCER
P.O. BOX 291
LANGLOIS, OREGON 97450

503-347-4114

to use the waters of TWO WELLS in the CROFT LAKE BASIN for CRANBERRY OPERATIONS ON 12 ACRES AND NURSERY OPERATIONS ON 4.0 ACRES.

This permit is issued approving Application G-12685. The date of priority is OCTOBER 4, 1991. The use is limited to not more than 0.356 CUBIC FOOT PER SECOND (CFS), BEING 0.178 CFS FOR CRANBERRIES AND 0.008 CFS FOR NURSERY FROM WELL 1 AND 0.178 CFS FOR CRANBERRIES AND 0.100 CFS FOR NURSERY FROM WELL 2, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

SE 1/4 SE 1/4, SECTION 11, T 30 S, R 15 W, W.M.; WELL 1 - 1030 FEET NORTH AND 750 FEET WEST, WELL 2 - 5 FEET NORTH AND 20 FEET WEST, BOTH FROM SE CORNER, SECTION 11.

The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.

The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of containerized nursery plants, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of in ground nursery plants the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime of the year that the use is beneficial. For the irrigation of any other crop, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year. The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the proposed place of use under this permit is as follows:

| CRANBERRY | NURSERY |
|--|-----------|
| SE 1/4 SE 1/4 10.0 ACRES | 4.0 ACRES |
| SECTION 11 | |
| NW 1/4 NE 1/4 2.0 ACRES | |
| SECTION 13 | |
| TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M. | |

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

Prior to receiving a certificate of water right, the permit holder shall submit the results of a pump test meeting the department's standards, to the Water Resources Department. The Director may require water level or pump test results every ten years thereafter.

Actual construction work shall begin on or before , and shall be completed on or before October 1, 1993. Complete application of the water shall be made on or before October 1, 1994.

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

This permit is for beneficial use of water without waste. The water user is advised that new regulations may require use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

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

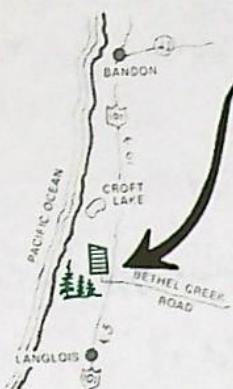
Issued this date, .

Water Resources Department
William H. Young
Director

I, _____, hereby understand and agree that this draft permit describes the full extent of water use that will be allowed approving Application g-12685. By signature below, I agree to the proposed terms and conditions for this draft permit.

Signature

Date



GROWTH UNLIMITED
TREE FARM NURSERY, Inc.

HARRY SPENCER, Proprietor President
P.O. BOX 291
LANGLOIS, OR 97450

Reforestation stock and
ornamental plantings. Research
in growth and species adaptation.
(503) 347-4114

State of Oregon
Water Resources Dept.

Reference: File (e) G-12685

10/17/91

RECEIVED
OCT 21 1991
WATER RESOURCES DEPT.
SALEM, OREGON

Gentlemen:

Regarding the above referenced File No.
for a water right application I submitted 9/30/91,
I thank you for your 10/11/91 notification of
receipt of application and fees.

Enclosed are the two items that I noted
would follow when I applied:

1. The groundwater geologist's report
on Well # 2 in the SE Cor. Sec. 11
T. 30 S R. 15 W, by Russell Ralls.
2. The Oregon State Highway Permit #07M36015
for our 4" PVC pipeline crossing of Highway 101.

These items should complete all submissions
needed for this application, per CWRE Jim
Gasson's letter of 9/20/91, enclosed with the
application. If there are any questions,
please contact me at the above phone or address.

I would appreciate action on this application
before the end of this year if possible. We
need to complete property transfers based on

whether we get these water rights, and plant cranberry vines in January on prepared bags and water developments that hinge on getting these rights, and already have appreciable expenditures.

I might mention that I have reviewed the basic mechanics and system shown in this application with John Drost, watermaster in Coquille, and they met with his approval. I realize that is only part of the process.

If you wish to contact Russell Falls, the geologist who made the hydrologic reports on the wells, his phone number and address are on the reports.

If you need anything further, please contact me.

Sincerely yours,

Harry Spencer

P.S. I also enclose a letter from Russell Falls, geologist, regarding the possibility of drilling future wells, and where they could be located without hydrologic connection with Conner Creek as well.

Other Enclosures:

- Falls hydrologic evaluation of Well #2 in SE corner of Sec. 11, T. 30S, R. 15W.
- Copy of Oregon State Highway Permit # 07M36015 for our water line.

Oregon Water Resources Dept.
Salem, Or.
97310

Harry G. Spencer
P. O. Box 291
Langlois, Or.
97450

RECEIVED

AUG 24 1995

WATER RESOURCES DEPT.
SALEM, OREGON

Enclosed are second copies, signed, of
my A^{1B} Notifications for Permit No. G-11826
Application No. G-12685

I am sending these second copies because I
think I may have failed to sign the first
copies that I mailed Aug. 17, 1995. Please retain
only signed copies in my file.

Thank you.

Harry G. Spencer

NOTICE OF BEGINNING OF CONSTRUCTION

I, Harry G. Spencer, the holder of Permit No. G-11826

to appropriate the public waters of the state of Oregon, began the actual construction of the works described therein on the 15th day of November, 1994 Jim Mack, Well driller.

Remarks: We had the wells drilled for testing earlier (see Pals Report)

The appropriator must state the manner of beginning of construction, the amount of work completed and the type of equipment acquired for the water system up to the date of this statement, and any additional information which shows a substantial beginning of construction as

mainline 2.5
authorized by your permit.

IN WITNESS WHEREOF, I have hereunto set my hand this 4th day of November, 1994

Harry G. Spencer
(Signature of Applicant)

P.O. Box 291, Langlois, OR 97450
(Address)

Fill out, detach and mail to the Water Resources Department, Salem, OR 97310, when construction work is begun.

SP#35567-000

NOTICE OF COMPLETION OF CONSTRUCTION

W.E.P.I.
AUG 24 1995
I, Harry G. Spencer, the holder of Permit No. G-11826

appropriate the public waters of the state of Oregon, completed the construction of the works described therein on the 15th day of November, 1994

Remarks: We now have the bags built, all PVC underground installed,
If the works have less capacity than described on the permit, or you have definitely abandoned part of the proposed develop-

ment, you should state in order that our records may not be unnecessarily encumbered.

IN WITNESS WHEREOF, I have hereunto set my hand this 19th day of November, 1994

Harry G. Spencer
(Signature of Applicant)

P.O. Box 291, Langlois, OR 97450
(Address)

Fill out, detach and mail to the Water Resources Department, Salem, OR 97310, when construction work is completed.

RECEIVED

AUG 24 1995

WATER RESOURCES DEPT.
SALEM, OREGON

STATE OF OREGON

COUNTY OF COOS

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

Harry G. Spencer
P.O. Box 291
Langlois, OR 97450

503-347-4114

to use the waters of Wells 1 and 2 in the CROFT LAKE BASIN for Nursery Operations on 4.0 acres and Cranberry Operations on 12.0 acres.

This permit is issued approving Application G-12685. The date of priority is OCTOBER 4, 1991. The use is limited to not more than 0.356 CUBIC FEET PER SECOND (cfs); being 0.178 cfs for cranberry operations and 0.008 cfs for nursery operations from well 1 and 0.178 cfs for cranberry operations and 0.10 cfs for nursery operations from well 2 provided the total quantity of water diverted shall not exceed 0.356 cfs, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

SE 1/4 SE 1/4, Section 11, Township 30 South, Range 15 West, WM;
Well 1 - 1030 feet North and 750 feet West; Well 2 - 5 feet North
and 20 feet West, both from the SE corner of Section 11. C

The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.

The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of containerized nursery plants, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of in ground nursery plants the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime of the year that the use is beneficial. For the irrigation of any other crop, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

A description of the proposed place of use under this permit is as follows:

| | Cranberry Operations | Nursery Operations |
|--------------------------------------|----------------------|--------------------|
| SE 1/4 SE 1/4 SECTION 11 | 10.0 Acres | 4.0 Acres |
| NW 1/4 NE 1/4 SECTION 13 | 2.0 Acres | |
| TOWNSHIP 30 SOUTH, RANGE 15 WEST, WM | | |

Measurement, recording and reporting conditions:

- A. Before water use may begin under this permit, the permittee shall install a meter or other suitable measuring device as approved by the Director. The permittee shall maintain the meter or measuring device in good working order, shall keep a complete record of the amount of water used each month and shall submit a report which includes the recorded water use measurements to the Department annually or more frequently as may be required by the Director. Further, the Director may require the permittee to report general water use information, including the place and nature of use of water under the permit.
- B. The permittee shall allow the watermaster access to the meter or measuring device; provided however, where the meter or measuring device is located within a private structure, the watermaster shall request access upon reasonable notice.

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

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

The wells shall be constructed in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine water level elevation in the wells at all times.

Prior to receiving a certificate of water right, the permit holder shall submit the results of a pump test meeting the department's standards, to the Water Resources Department. The Director may require water level or pump test results every ten years thereafter.

Actual construction work shall begin on or before November , 1995, and shall be completed on or before October 1, 1996. Complete application of the water shall be made on or before October 1, 1997.

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

This permit is for beneficial use of water without waste. The water user is advised that new regulations may require use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The Water Resources Commission has found that the proposed use of water described by this permit, as conditioned, will not impair or be detrimental to the public interest on September 9, 1994.

This permit is issued to correct scrivener errors and supersedes permit G-11826.

Issued this date, November , 1994.

*for well location
and place of use
and permit condition*

Water Resources Department
Martha O. Pagel
Director

Application G-12685 Water Resources Department
Basin 17 Volume 3 Croft Lake & Misc.
G-12685.SB

PERMIT G-
District 19

RECEIVED
WATERBURY PLANNING & ZONING DEPARTMENT
OCT - 3 1981

Receipt for Request for Land Use Information

WRD Applicant Name:

X Harry D. Seaver

This receipt must be signed by a local government representative and returned to the applicant for inclusion in the WRD application IF the local government can not provide the above requested land use information while the applicant waits.

City or County: Coos

Staff Contact: Planning Technician Phone: 396-3121, X210

Signature: Sheila Wilson Date of Information Request: 9/30/91

Application No. 6-12685

Permit No.

Oregon Water Resources Department
3850 Portland Rd. NE
Salem, OR 97310
378 - 3671

Version: 8/27/90

Description of Water Use

RECEIVED

Note to Applicant: This sheet will provide local planning staff with a basic description of your proposed water use. Please fill out this sheet before bringing the attached land use form to your local planning office. It will help local planning offices complete your land use information form quickly.

WATER RESOURCES DEPT.

Note to Local Planning Officials: Please initial this sheet. Do not separate it from the land use information form. If needed, please make a separate copy for your records.

Applicant Name: Harry G. Spencer
 Address: P. O. Box 291
 Langlois, Oregon 97450
 Phone: 503/347-4114

Please indicate what you will use the water for. Check all boxes that apply and fill in the blanks with key characteristics of the project

Irrigation (crop type, golf course, nursery or greenhouse): _____

Livestock (type of livestock, feedlot, slaughterhouse): _____

Residential (# units, single or multi-family, # lots if partition or subdivision): _____

Commercial (i.e., retail, office, restaurant, gas station, hotel, service, etc.): _____

Industrial (i.e., factory, pulp mill, research and development, processing, etc.): _____

Institutional (i.e., school, library, etc.): _____

Mining (aggregate, metal, open pit, placer, etc.): _____

Recreation (park, campsite, pond, etc.): _____

Fish and Wildlife (pond, hatchery, etc.): _____

Hydropower (dam, reservoir, power generating or transmitting facilities): _____

Other (Name and list key characteristics): cranberry use and nursery operations

| Indicate sources for the proposed water use below: | Indicate the estimated quantity of water the use will require. |
|--|--|
| <input type="checkbox"/> Surface Water Name sources: _____ _____ _____ | 0.357 Cubic feet per second. 160 Gallons per minute. _____ Acre-Feet |
| <input type="checkbox"/> Reservoir or pond | |
| <input checked="" type="checkbox"/> Ground Water | |

RECEIVED

Land Use Information Form: Permits, Hydroelectric Licenses, Water Uses in
Addition to Classified Uses

OCT - 3 1991

This information is needed to determine compatibility with local comprehensive plans as required by ORS 197.180. The Water Resources Department will use this and other information to evaluate the water use application. DO NOT FILL OUT THIS FORM IF water is to be diverted, conveyed, and/or used only on federal lands.

Applicant's Name: Harry G. Spencer
Address: P. O. Box 291
City: Langlois State: OR Zip: 97450 Day Phone: 503/347-4114

Please provide information as requested below for all tax lots on or through which water will be diverted or used. (Attach extra sheets as necessary.) 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.

| Tax Lot or Local I.D.# | Plan Designation/Zoning (e.g. Rural Residential/RR-5) | Check All That Apply | | |
|---------------------------|--|----------------------|-------------------|--------------|
| | | Water Diverted | Water Conveyed | Water Use |
| 13644.00 | 30-15-11 1600 "F" | x | x | x |
| 13657.00 | 30-15-13 100 "F" | | x | x |
| 13657.04 | 30-15-13 103 "F" | | x | |
| | | | ? | |
| 13652.06 | 30-15-12 1501 "EFU" | | x | |
| 13652.00 | 30-15-12 1500 #EFU" | | x | |
| 13652.90 | | | x | |

Coos County, Oregon

Local government planning officials are to complete the remainder of this form. If this form can not be completed while the applicant waits, please sign and detach the receipt as instructed below. Please mail the completed form directly to the Water Resources Department (3850 Portland Rd. NE, Salem, OR, 97310) within 60 days of the date of receipt as shown below. If the form is not completed within 60 days, the Department may take action to approve the water use.

a) Check the appropriate box below and provide requested information.

Land uses to be served by proposed water uses (including proposed construction) are allowed outright or are not regulated by your comprehensive plan. Cite applicable ordinance section(s): _____ Go to section b) on reverse side.

Land uses to be served by proposed water uses (including proposed construction) involve discretionary land use approvals as listed in the table below. Note: Please attach documentation of applicable local land use approvals which have already been obtained. (Record of Action plus any accompanying findings is sufficient.)

| Type of Land Use Approvals Needed (e.g.: plan amendments, rezones, conditional use permits, etc.) | Cite Most Significant, Applicable Plan Policies & Ordinance Section References | Please check the box that applies: | | |
|--|--|------------------------------------|-------------------|---------------------------------|
| | | Already Obtained | Already Denied | Being Pursued Satisfactorily |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
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| | | | | |

(over)

Receipt for Request for Land Use Information

WRD Applicant Name: Harry G. Spencer

This receipt must be signed by a local government representative and returned to the applicant for inclusion in the WRD application IF the local government can not provide the above requested land use information while the applicant waits.

City or County: Coos

Staff Contact: Planning Technician Phone: 396-3121, X210

Signature: Shila Wilson Date of Information Request: 9/30/91

RECEIVED

2

OCT - 3 1991

WATER RESOURCES DEPT.
SALEM, OREGON

(For Local Use Continued)

b) Please provide printed name and written signature.

Provide printed name and written signature.
Name: _____
Title: _____

Date: _____
Phone: _____

Signature: _____

Local governments are invited to express special land use concerns or make recommendations to the Department regarding this proposed use of water below, or on a separate sheet. For additional information call Roberta Jortner or Rick Bastasch at 378-3671.

Additional Comments:

STATE OF OREGON
COUNTY OF COOS
PERMIT TO APPROPRIATE THE PUBLIC WATERS

DRAFT
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JAN - 3 1992

WATER RESOURCES DEPT.
SALEM, OREGON

THIS PERMIT IS HEREBY ISSUED TO

HARRY G. SPENCER
P.O. BOX 291
LANGLOIS, OREGON 97450

503-347-4114

to use the waters of TWO WELLS in the CROFT LAKE BASIN for CRANBERRY OPERATIONS ON 12 ACRES AND NURSERY OPERATIONS ON 4.0 ACRES.

This permit is issued approving Application G-12685. The date of priority is OCTOBER 4, 1991. The use is limited to not more than 0.356 CUBIC FOOT PER SECOND (CFS), BEING 0.178 CFS FOR CRANBERRIES AND 0.008 CFS FOR NURSERY FROM WELL 1 AND 0.178 CFS FOR CRANBERRIES AND 0.100 CFS FOR NURSERY FROM WELL 2, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

SE 1/4 SE 1/4, SECTION 11, T 30 S, R 15 W, W.M.; WELL 1 - 1030 FEET NORTH AND 750 FEET WEST, WELL 2 - 5 FEET NORTH AND 20 FEET WEST, BOTH FROM SE CORNER, SECTION 11.

The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.

The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of containerized nursery plants, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of in ground nursery plants the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime of the year that the use is beneficial. For the irrigation of any other crop, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the proposed place of use under this permit is as follows:

| | CRANBERRY | NURSERY |
|--|------------|-----------|
| SE 1/4 SE 1/4 | 10.0 ACRES | 4.0 ACRES |
| | SECTION 11 | |
| NW 1/4 NE 1/4 | 2.0 ACRES | |
| | SECTION 13 | |
| TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M. | | |

RECORDED

JAN - 3 1992

DRAFT

WATER RESOURCES DEPT.
SALEM, OREGON

PAGE TWO

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

Prior to receiving a certificate of water right, the permit holder shall submit the results of a pump test meeting the department's standards, to the Water Resources Department. The Director may require water level or pump test results every ten years thereafter.

Actual construction work shall begin on or before , and shall be completed on or before October 1, 1993. Complete application of the water shall be made on or before October 1, 1994.

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

This permit is for beneficial use of water without waste. The water user is advised that new regulations may require use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

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

Issued this date,.

Water Resources Department
William H. Young
Director

I, Harry G. Spencer, hereby understand and agree that this draft permit describes the full extent of water use that will be allowed approving Application g-12685. By signature below, I agree to the proposed terms and conditions for this draft permit.

Harry G. Spencer
Signature

1/1/92
Date

IMPORTANT MESSAGE

FOR

Reed + Dwight

DATE

11/9

TIME

1:30

A.M.

P.M.

M

Harry Spencer

OF

PHONE

AREA CODE

NUMBER

EXTENSION

 FAX MOBILE

AREA CODE

NUMBER

TIME TO CALL

| | | | |
|--------------------|----------|-----------------|----------|
| TELEPHONED | <i>X</i> | PLEASE CALL | <i>X</i> |
| CAME TO SEE YOU | | WILL CALL AGAIN | |
| WANTS TO SEE YOU | | RUSH | |
| RETURNED YOUR CALL | | WILL FAX TO YOU | |

MESSAGE

*J4POS on**app16-12685 permit*
*on 6-11826**- sec #5**Sec. 11 not sec. 1*
(see attached)

SIGNED

STATE OF OREGON

COUNTY OF COOS

RECEIVED

PERMIT TO APPROPRIATE THE PUBLIC WATERS

NOV - 8 1994

THIS PERMIT IS HEREBY ISSUED TO

HARRY G. SPENCER
P.O. BOX 291
LANGLOIS, OR 97450WATER USE
SALEM, OR 97301
503-347-4114

to use the waters of WELLS 1 AND 2 in the CROFT LAKE BASIN for NURSERY OPERATIONS OF 4.0 ACRES AND CRANBERRY OPERATIONS OF 12.0 ACRES.

This permit is issued approving Application G-12685. The date of priority is OCTOBER 4, 1991. The use is limited to not more than 0.356 CUBIC FOOT PER SECOND (CFS); being 0.178 cfs for cranberry operations and 0.008 cfs for nursery operations from well 1 and 0.178 cfs for cranberry operations and 0.10 cfs for nursery operations from well 2 provided the total quantity of water diverted shall not exceed 0.356 cfs, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

SE 1/4 SE 1/4, Section 11, T 30 S, R 15 W, WM; Well 1 - 1030 feet north and 750 feet west, from SE corner Section 11; WELL 2 - 5 feet north and 20 feet west, from SE corner Section 11.

The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.

The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of containerized nursery plants, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of in ground nursery plants the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime of the year that the use is beneficial. For the irrigation of any other crop, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

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

A description of the proposed place of use under this permit is as follows:

| | | |
|-----------------------------|------------|-----------|
| SE 1/4 SE 1/4 Section 11 | 10.0 Acres | 4.0 Acres |
| NW 1/4 NE 1/4 Section 12 | 2.0 Acres | |

Township 30 South, Range 15 West, WM

Measurement, recording and reporting conditions:

A. Before water use may begin under this permit, the permittee shall install a meter or other suitable measuring device as approved by the Director. The permittee shall maintain the meter or measuring device in good working order, shall keep a complete record of the amount of water used each month and shall submit a report which includes the recorded water use measurements to the Department annually or more frequently as may be required by the Director. Further, the Director may require the permittee to report general water use information, including the place and nature of use of water under the permit.

B. The permittee shall allow the watermaster access to the meter or measuring device; provided however, where the meter or measuring device is located within a private structure, the watermaster shall request access upon reasonable notice.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

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

Prior to receiving a certificate of water right, the permit holder shall submit the results of a pump test meeting the department's standards, to the Water Resources Department. The Director may require water level or pump test results every ten years thereafter.

Actual construction work shall begin on or before October 5, 1995 and shall be completed on or before October 1, 1996. Complete application of the water shall be made on or before October 1, 1997.

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

This permit is for beneficial use of water without waste. The water user is advised that new regulations may require use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The Water Resources Commission has found that the proposed use of water described by this permit, as conditioned, will not impair or be detrimental to the public interest on September 9, 1994.

Issued this date October 5, 1994.

A. Reed Marbut
A. REED MARBUT

*Superior
Cleaveland*

Water Resources Department
Martha O. Pagel
Director

Application G-12692
Basin 17
G-12692.SB

Water Resources Department
Volume 3 Croft Lake & Misc.

PERMIT G-11826
District 19

Should be 6-12685

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SEP 30 1997

WATER RESOURCES DEPT.
SALEM, OREGON

CLAIM OF BENEFICIAL USE AND SITE REPORT

IN THE NAME OF HARRY G. SPENCER

APPLICATION G-12685 PERMIT G-11826

SECTIONS 11, 12 AND 13, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.

GENERAL INFORMATION

The methods used to determine the information contained in this document are as follows:

1. Examination of Permit G-11826,
2. Examination of Assessor's Map 30-15-11,
3. Examination of Assessor's Map 30-15-12,
4. Examination of Assessor's Map 30-15-13,
5. Examination of Assessor's Map 30-15-14,
6. Examination of 7 1/2' U.S.G.S. Quadrangle Map (Langlois),
7. On-site survey, May 19, 1997 and July 22, 1997,
7. Interview with Doug Spencer, May 19, 1997 and July 22, 1997.

SOURCE

Two wells in the Croft Lake Basin.

Well #1

A 6" by approximately 60' deep steel-cased well in the SE1/4 SE1/4 of Section 11. A 5 horsepower well pump delivers water to in-system holding ponds and subsequent use in the SE1/4 SE1/4 of Section 11 via a 2 1/2" X 800' P.V.C pipeline.

Well #2

A 6" by approximately 60' deep steel-cased well in the SE1/4 SE1/4 of Section 11. A 3 horsepower well pump delivers water to the place of use in the SE1/4 SE1/4 of Section 11 and to in-system storage ponds and subsequent use in the NW1/4 NE1/4 of Section 13.

POINT OF DIVERSION

Well #1: 1100 feet north and 660 feet west, Well #2: 5 feet north and 20 feet west, both being from the southeast corner of Section 11 and both being within the SE1/4 SE1/4 of Section 11, Township 30 South, Range 15 West, W.M. Coos County.

USE

Cranberry Operations and Nursery Operations.

PLACE OF USE

Cranberry Operations

SE1/4 SE1/4 Section 11: 10.3 Acres,
NW1/4 NE1/4 Section 13: 1.6 Acres,
NE1/4 NE1/4 Section 13: 0.1 Acre,

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CLAIM OF BENEFICIAL USE - SPENCER - PERMIT G-11826
PAGE 2

WATER RESOURCES DEPT.
SALEM, OREGON

Nursery Operations

SE1/4 SE1/4 Section 11: 2.3 Acres.

CAPACITY OF THE DELIVERY SYSTEMS

From Well #1

$$\text{USING: } Q_{\text{PUMP}} = \frac{C \times HP}{H_{\text{TOTAL}}}$$

WHEN

$C=7.04$

$HP=5$

$H_{\text{ELEVATION}}=50'$

$H_{\text{PRESSURE}}=0$

$H_{\text{FRICTION}}=2.1'/100' (\text{ASSUMED}) = (2.1)(9) = 19'$

$$Q_{\text{PUMP}} = \frac{(7.04)(5)}{69} = \frac{35.2}{69} = 0.51 \text{ cfs} = 22.9 \text{ GPM}$$

$H_{\text{FRICTION}} @ 229 \text{ GPM} = 2.4'/100' = (2.4)(9) = 22'$

$$Q_{\text{PUMP}} = \frac{35.2}{72} = 0.489 \text{ cfs} = 220 \text{ GPM}$$

$H_{\text{FRICTION}} @ 220 \text{ GPM} = 2.4'/100'$

$Q_{\text{PUMP}} = 0.489 \text{ cfs } OK$

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WATER RESOURCES DEPT.
SALEM, OREGON

CLAIM OF BENEFICIAL USE - SPENCER - PERMIT G-11826
PAGE 3

From Well #2

WHEN

$C=7.04$

$HP=3$

$H_{ELEVATION}=50+67=117'$

$H_{PRESSURE}=0$

$H_{FRICTION}=2.1'/100'(\text{ASSUMED})=(2.1)(36)=76'$

$$Q_{PUMP}=\frac{(7.04)(3)}{117+76}=\frac{21.12}{193}=0.109 \text{ cfs}=49 \text{ GPM}$$

$$H_{FRICTION} @ 49 \text{ GPM}=0.16'/100'=(0.16)(36)=6'$$

$$Q_{PUMP}=\frac{21.12}{117+6}=\frac{21.12}{123}=0.172 \text{ cfs}=77 \text{ GPM}$$

$$H_{FRICTION} @ 77 \text{ GPM}=0.37'/100'=(0.37)(36)=13'$$

$$Q_{PUMP}=\frac{21.12}{117+13}=\frac{21.12}{130}=0.162 \text{ cfs}=73 \text{ GPM}$$

$$H_{FRICTION} @ 73 \text{ GPM}=0.36'/100'=(0.36)(36)=13'$$

$$Q_{PUMP}=0.162 \text{ cfs} \text{ OK}$$

CAPACITY OF WELL #1 + WELL #2 = $0.489+0.162=0.651 \text{ cfs}$

$0.651 < Q_{PERMIT}$ FOR TEMPERATURE CONTROL

Q_{PUMPS} GOVERN @ 0.651 cfs

$Q_{ALLOWABLE}$

IRRIGATION

CRANBERRIES:

$(1/40)(10)=0.25 \text{ cfs}$

NURSERY:

$(1/80)(2.3)=\underline{0.029} \text{ cfs}$

TOTAL

0.279 cfs

TEMPERATURE CONTROL

CRANBERRIES:

$(0.15)(10)=1.5 \text{ cfs}$

NURSERY:

$(0.15)(2.3)=\underline{0.345} \text{ cfs}$

TOTAL

1.845 cfs

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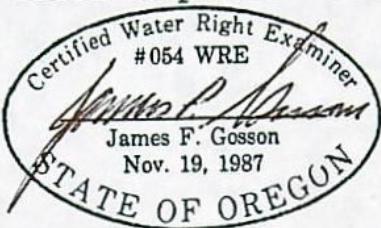
CLAIM OF BENEFICIAL USE - SPENCER - PERMIT G-11826
PAGE 4

SEP 30 1997

WATER RESOURCES DEPT.
SALEM, OREGON

CERTIFICATION

The Final Proof Survey and inspection of the use as found to be completed under the terms and conditions of Permit G-11826 were completed by James F. Gosson, Certified Water Right Examiner #54, on July 22, 1997, and the facts contained in this report and accompanying Final Proof Map are correct to the best of my knowledge.



I, Harry G. Spencer, agree to the findings of James F. Gosson, Certified Water Right Examiner #54, and do submit this site report and map as Claim of Beneficial Use of the water as provided under the terms and conditions of Permit G-11826.

Harry G. Spencer
Signature

9/26/97
Date

CLAIM OF BENEFICIAL USE: G-12685
COMPLETENESS CHECKLIST

*permits on
det*

- 1. Source
- 2. POD/POA location
- 3. Conveyances shown *for well #2; NOT #1.*
- 4. POU shown
- 5. Map Scale
- 6. Township, Range, Section
- 7. North arrow
- 8. CWRE stamp & signature on report *and* map
- 9. Disclaimer
- 10. Date of survey
- 11. Point of Beginning
- 12. Dimensions/Capacity of
Diversion system

- 13. "Beneficial Use"-type title
- 14. Map on Linen or polyester film
- 15. Permit conditions
 - well access port
 - overirrigated acres
- 16. Type of use
- 17. Extent of use
- 18. Rate and duty - *ASSUMES 10 ACRES; SHOULD BE 12.0.*
- 19. Time limits
- 20. Crop type
- 21. System capacity
(with computations)

*8-1ST Q PUMP CALCULATION FOR WELL #1
SHOULD RESULT IN 229 GPM, NOT 22.9 GPM*

Reviewer: Cory Engel Date: 11/20/97

Stored at M:\masters\pchecklist.wpd

*report lacks complete data re. water system.
perm test rec'd is 91; and no info on meter or reporting.*

ACB 2/2/00



Oregon

John A. Kitzhaber, M.D., Governor

Water Resources Department

Commerce Building
158 12th Street NE
Salem, OR 97310-0210
(503) 378-3739
FAX (503) 378-8130

October 10, 1997

HARRY G. SPENCER
PO BOX 291
LANGLOIS, OR 97450

REFERENCE: File G-12685

This will acknowledge that your claim of beneficial use and map in the name of HARRY G. SPENCER were received on SEPTEMBER 30, 1997. These will be reviewed in the future to insure they are complete and correct.

Please contact me if you have any questions.

Sincerely,

Don Knauer *JKB*

DON KNAUER
Program Representative

DEK:tcb

cc: JAMES F. GOSSON, CWRE #54

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SEP 30 1997

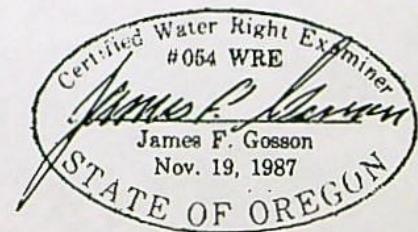
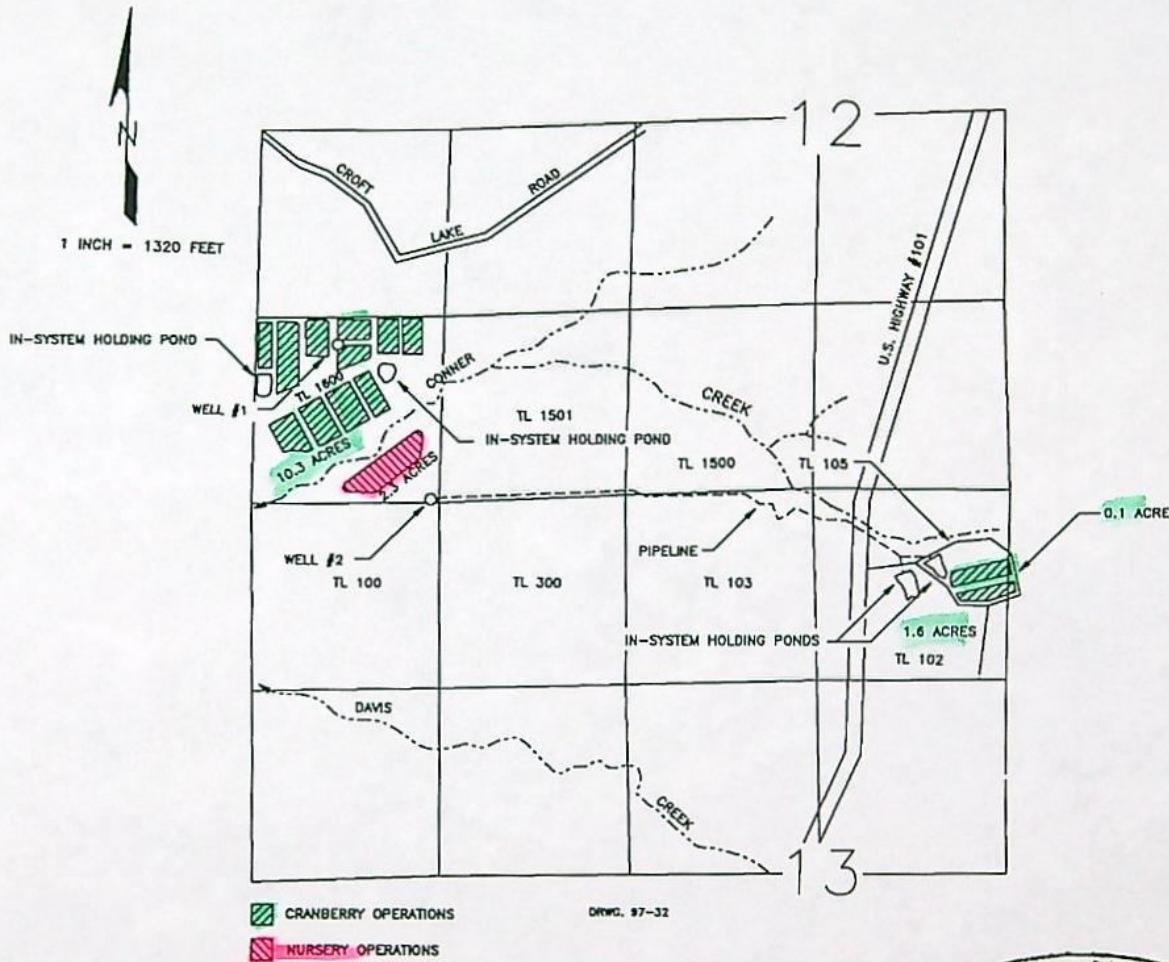
WATER RESOURCES D
SALEM, OREGON

FINAL PROOF SURVEY MAP
IN THE NAME OF HARRY G. SPENCER

SECTIONS 11, 12, & 13, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.

APPLICATION G-12685

PERMIT G-11826



WELL # 1 IS LOCATED 1100 FEET NORTH AND 660 FEET WEST; WELL #2 IS LOCATED 5 FEET NORTH AND 20 FEET WEST, BOTH BEING FROM THE SOUTHEAST CORNER OF SECTION 11 AND BOTH BEING WITHIN THE SE1/4 SE1/4 OF SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M., COOS COUNTY.

THE PURPOSE OF THIS MAP IS TO IDENTIFY THE LOCATION OF THE WATER
RIGHT. IT IS NOT INTENDED TO PROVIDE INFORMATION RELATIVE TO
PROPERTY OWNERSHIP BOUNDARY LINES.

JAMES F. GOSSON

580 S. State Street
Sutherlin, Oregon 97479-9536
541-459-2243 pegjim@mcsl.net

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MAR 10 2000

Civil Engineer
Water Right Examiner

WATER RESOURCES DEPT.
SALEM, OREGON

8 March, 2000

Oregon Water Resources Department
Commerce Building
158 12th Street NE
Salem, Or 97310

Attn: Steve Brown

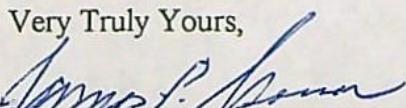
Re: Application G-12685, Permit G-11826 (Spencer)

Dear Mr. Brown,

In response to your letter of February 7, 2000. I have reviewed my field notes, taken the day of the field inspection, and find reference to both sources, Well #1 and Well #2, as being metered by way of in-line, totalizing, flange-type, 2-inch McCrometer meters. My notes do not describe, and my memory fails to recall, the details as to the location; nor have I been able to determine the serial number, or numbers. If you need this information, I will schedule a re-visit to the site my next trip to that area, which should be within the month.

On the basis of my knowledge gained from reviewing my notes, I attest by this letter, that both sources of water are metered with meters that satisfy the criteria of your department, however, let me know if you want the additional information I described above, and if you want it in the form of an amended Site Inspection Report.

Very Truly Yours,


James F. Gosson

cc: Doug Spencer



Oregon

John A. Kitzhaber, M.D., Governor

February 7, 2000

Water Resources Department
Commerce Building
158 12th Street NE
Salem, OR 97310-0210
(503) 378-3739
FAX (503) 378-8130

James F. Gosson, CWRE
580 S. State Street
Sutherlin, OR 97479

Reference: Application G-12685, Permit G-11826 - Harry Spencer

Dear Mr. Gosson:

I have received a request, from Mr. Doug Spencer, to review the claim of beneficial use report for the above referenced permit.

The permit contains the following measurement, recording and reporting condition:

"Before water use may begin under this permit, the permittee shall install a meter or other suitable measuring device as approved by the Director. The permittee shall maintain the meter or measuring device in good working order, shall keep a complete record of the amount of water used each month and shall submit a report which includes the recorded water use measurements to the Department annually or more frequently as may be required by the Director. Further, the Director may require the permittee to report general water use information, including the place and nature of use of water under the permit."

Without the information regarding the condition described above, the claim of beneficial use report is incomplete. If you will provide information regarding any record of the amount of water diverted, the department will determine if the permit condition in question has been satisfied.

Please feel free to contact me if you have any questions and I will be happy to address any concerns you may have. I remain,

Sincerely,

Steve Brown
Program Analyst

c: Mr. Spencer
Mr. John Drolet, Watermaster

Oregon

WATER
RESOURCES
DEPARTMENT

January 28, 2000

Sea Mist Farms
Attn: Harry Spencer
P.O. Box 239
Langlois, OR. 97450

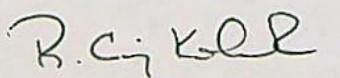
With regard to the pump test requirements for the following well and its associated water rights:

APP. #:G - 12685 PERMIT #: G - 11826 POD-ID: 36443 USER-ID: 26775
36444

The Department has accepted the pump test results you have submitted. The department requires no further testing of this well at this time. However, you will be required to submit a static water level measurement of the wells on the ten-year anniversary of the test you conducted. That date is **August 21, 2001**. If your permit or certificate includes a condition that requires annual static water level measurements, please continue to make and report these measurements unless otherwise instructed.

We appreciate your cooperation with this program. If you have any questions, please contact me at (503) 378-8455 ext. 289 or Mike Zwart at ext. 207. The Departments toll-free number is 1-800-624-3199.

Sincerely,


R. Craig Kohanek
Pump Test Coordinator

c: Water Rights Section



Commerce Building
158 12th Street NE
Salem, OR 97310-0210
(503) 378-3739
FAX (503) 378-8130

STATE OF OREGON

COUNTY OF COOS

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

HARRY G. SPENCER
P.O. BOX 291
LANGLOIS, OR 97450

503-347-4114

to use the waters of WELLS 1 AND 2 in the CROFT LAKE BASIN for NURSERY OPERATIONS OF 4.0 ACRES AND CRANBERRY OPERATIONS OF 12.0 ACRES.

This permit is issued approving Application G-12685. The date of priority is OCTOBER 4, 1991. The use is limited to not more than 0.356 CUBIC FOOT PER SECOND (CFS); being 0.178 cfs for cranberry operations and 0.008 cfs for nursery operations from well 1 and 0.178 cfs for cranberry operations and 0.10 cfs for nursery operations from well 2 provided the total quantity of water diverted shall not exceed 0.356 cfs, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

SE 1/4 SE 1/4, Section 1, T 30 S, R 15 W, WM; Well 1 - 1030 feet north and 750 feet west, from SE corner Section 11; WELL 2 - 5 feet north and 20 feet west, from SE corner Section 11.

The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.

The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of containerized nursery plants, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of in ground nursery plants the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime of the year that the use is beneficial. For the irrigation of any other crop, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

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

A description of the proposed place of use under this permit is as follows:

| | Cranberry Operations | Nursery Operations |
|--------------------------------------|----------------------|--------------------|
| SE 1/4 SE 1/4 | 10.0 Acres | 4.0 Acres |
| Section 12 | | |
| NW 1/4 NE 1/4 | 2.0 Acres | |
| Section 13 | | |
| Township 30 South, Range 15 West, WM | | |

Measurement, recording and reporting conditions:

- A. Before water use may begin under this permit, the permittee shall install a meter or other suitable measuring device as approved by the Director. The permittee shall maintain the meter or measuring device in good working order, shall keep a complete record of the amount of water used each month and shall submit a report which includes the recorded water use measurements to the Department annually or more frequently as may be required by the Director. Further, the Director may require the permittee to report general water use information, including the place and nature of use of water under the permit.
- B. The permittee shall allow the watermaster access to the meter or measuring device; provided however, where the meter or measuring device is located within a private structure, the watermaster shall request access upon reasonable notice.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

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

Prior to receiving a certificate of water right, the permit holder shall submit the results of a pump test meeting the department's standards, to the Water Resources Department. The Director may require water level or pump test results every ten years thereafter.

Actual construction work shall begin on or before October 5, 1995 and shall be completed on or before October 1, 1996. Complete application of the water shall be made on or before October 1, 1997.

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

This permit is for beneficial use of water without waste. The water user is advised that new regulations may require use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The Water Resources Commission has found that the proposed use of water described by this permit, as conditioned, will not impair or be detrimental to the public interest on September 9, 1994.

Issued this date October 5, 1994.

A. Reed Marbut
A. REED MARBUT

Water Resources Department
Martha O. Pagel
Director

Application G-12692 Water Resources Department PERMIT G-11826
Basin 17 Volume 3 Croft Lake & Misc. District 19
G-12692.SB

Route Slip



Date 11-01-94

| TO: | Name | Division/Section | Initial | Date |
|-----|------|------------------|---------|------|
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |

| | | | |
|----------------------|---|--------------------|-------------------------|
| as requested | | investigate | per conversation |
| approval | | justify | prepare reply |
| comment | X | necessary action | return with more detail |
| confer | | initial and return | review and circulate |
| for your information | | note and file | signature |

Description on permit
is incorrect. Section should
be 11, not 12.

Mr. Spencer owns the SESE
of Sect. 11, not Sect 12 per

FROM: Jerre, Dist #19 Phone No.
396-3121
ext 254

25-097677

See Other Side

Coos County Assessor
Records.

Also, application map
describes Sect. 11

Landings no mitigation
Vicinity of the town of Coos
County, State of Oregon, U.S.
Recent land survey of
the 1/4 section line 11, Twp. 20
Range 10, Coos County, Oregon.

G-11826

STATE OF OREGON

COUNTY OF COOS

RECEIVED

PERMIT TO APPROPRIATE THE PUBLIC WATERS

NOV - 3 1994

THIS PERMIT IS HEREBY ISSUED TO

HARRY G. SPENCER
 P.O. BOX 291
 LANGLOIS, OR 97450

WATER RESOURCES DEPARTMENT
 SALEM, OREGON
 503-347-4114

to use the waters of WELLS 1 AND 2 in the CROFT LAKE BASIN for NURSERY OPERATIONS OF 4.0 ACRES AND CRANBERRY OPERATIONS OF 12.0 ACRES.

This permit is issued approving Application G-12685. The date of priority is OCTOBER 4, 1991. The use is limited to not more than 0.356 CUBIC FOOT PER SECOND (CFS); being 0.178 cfs for cranberry operations and 0.008 cfs for nursery operations from well 1 and 0.178 cfs for cranberry operations and 0.10 cfs for nursery operations from well 2 provided the total quantity of water diverted shall not exceed 0.356 cfs, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

SE 1/4 SE 1/4, Section 11, T 30 S, R 15 W, WM; Well 1 - 1030 feet north and 750 feet west, from SE corner Section 11; WELL 2 - 5 feet north and 20 feet west, from SE corner Section 11.

The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.

The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of containerized nursery plants, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of in ground nursery plants the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime of the year that the use is beneficial. For the irrigation of any other crop, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

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

A description of the proposed place of use under this permit is as follows:

| | Cranberry Operations | Nursery Operations |
|--------------------------------------|----------------------|--------------------|
| SE 1/4 SE 1/4 Section 12// | 10.0 Acres | 4.0 Acres |
| NW 1/4 NE 1/4 Section 13 | 2.0 Acres | |
| Township 30 South, Range 15 West, WM | | |

Application G-12685

Water Resources Department

PERMIT G-11826

Wm. M. S.

OCT 11 1994

17-3

Measurement, recording and reporting conditions:

- A. Before water use may begin under this permit, the permittee shall install a meter or other suitable measuring device as approved by the Director. The permittee shall maintain the meter or measuring device in good working order, shall keep a complete record of the amount of water used each month and shall submit a report which includes the recorded water use measurements to the Department annually or more frequently as may be required by the Director. Further, the Director may require the permittee to report general water use information, including the place and nature of use of water under the permit.
- B. The permittee shall allow the watermaster access to the meter or measuring device; provided however, where the meter or measuring device is located within a private structure, the watermaster shall request access upon reasonable notice.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

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

Prior to receiving a certificate of water right, the permit holder shall submit the results of a pump test meeting the department's standards, to the Water Resources Department. The Director may require water level or pump test results every ten years thereafter.

Actual construction work shall begin on or before October 5, 1995 and shall be completed on or before October 1, 1996. Complete application of the water shall be made on or before October 1, 1997.

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

This permit is for beneficial use of water without waste. The water user is advised that new regulations may require use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The Water Resources Commission has found that the proposed use of water described by this permit, as conditioned, will not impair or be detrimental to the public interest on September 9, 1994.

Issued this date October 5, 1994.

A. Reed Marbut
A. REED MARBUT

Water Resources Department
Martha O. Pagel
Director

Application G-12692

Basin 17
G-12692.SB

Water Resources Department

Volume 3 Croft Lake & Misc.

PERMIT G-11826

District 19

Should be 6-12685

*Mark Corve How
reviewed? 4/27/00*

STATE OF OREGON
COUNTY OF COOS
PROPOSED CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

HARRY G. SPENCER
SEA MIST FARMS
P.O. BOX 239
LANGLOIS, OR 97450

confirms the right to use the waters of WELLS 1 AND 2 in the CROFT LAKE BASIN for NURSERY OPERATIONS ON 4.0 ACRES AND CRANBERRY OPERATIONS OF 12.0 ACRES.

This right was perfected under Permit G-12685. The date of priority is OCTOBER 4, 1991. The amount of water to which this right is entitled is limited to an amount actually beneficially used and shall not exceed 0.356 CUBIC FOOT PER SECOND, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

WELL 1 - SE 1/4 SE 1/4, SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.; 1100 FEET NORTH AND 650 FEET WEST FROM THE SE CORNER OF SECTION 11; AND

WELL 2 - SE 1/4 SE 1/4, SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.; 5 FEET NORTH AND 20 FEET WEST FROM THE SE CORNER OF SECTION 11.

The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.

The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of containerized nursery plants, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of in ground nursery plants the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime, during the period of allowed use specified above, that the use is beneficial. For the irrigation of any other crop, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year.

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

NURSERY OPERATIONS

SE 1/4 SE 1/4 2.3 ACRES
SECTION 11
TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.

CRANBERRY OPERATIONS

SE 1/4 SE 1/4 10.3 ACRES
SECTION 11

NE 1/4 NE 1/4 0.1 ACRE
NW 1/4 NE 1/4 1.6 ACRES
SECTION 13

TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

Measurement, recording and reporting conditions:

- A. The water user shall install a meter or other suitable measuring device as approved by the Director. The water user shall maintain the meter or measuring device in good working order, shall keep a complete record of the amount of water used each month and shall submit a report which includes the recorded water use measurements to the Department annually or more frequently as may be required by the Director. Further, the Director may require the water user to report general water use information, including the place and nature of use of water under the right.
- B. The water user shall allow the watermaster access to the meter or measuring device; provided however, where the meter or measuring device is located within a private structure, the watermaster shall request access upon reasonable notice.

The wells shall be maintained in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The wells shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine water level elevation in the wells at all times.

The Director may require water level or pump test results every ten years.

Failure to comply with any of the provision of this right may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the right.

The right to use water for the above purpose is restricted to beneficial use, without waste, on the lands or place of use described. The water user is advised that new regulations may require use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this right, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

R. J. RALLS - GEOLOGIST

P.O. Box 389 — 15693 Ocean View Dr.
Brookings, Oregon 97415

Phone
(503) 469-6053

August 18, 1992

RECEIVED

AUG 19 1992

Mr. Harry Spencer
Growth Unlimited Nursery Inc.
P. O. Box 291
Langlois, Oregon, 97450

Dear Mr. Spencer:

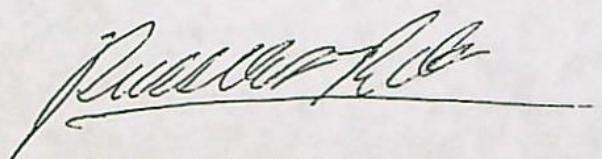
The accompanying report presents the results of our findings with respect to the Hydrogeology of the project area.

Please note, that on the Cross Section on page 9, we have used the levels of standing water in the Greenhouse Well and the SE Well as reported on previous reports of September 10, 1991 and October 7, 1991, respectively. Water levels of the Greenhouse well and the SE Well were 28 feet 7 $\frac{1}{2}$ inches and 29 feet 6 inches below the ground surface for each well respectively.

We believe that although the present water level of the Marine Terrace with respect to this dry season of 1992, may in fact be lower than the dry seasons of 1991, that this years slightly dryer season would not adversely affect or significantly change the results of our report except that the Marine Terrace water table and the Potentiometric surface in the clay of the wetland may have slightly lower grade.

If you have questions concerning the above, please contact us.

Respectfully submitted,



Russell J. Ralls
Consulting Geologist

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R. J. RALLS - GEOLOGIST

P.O. Box 389 — 15693 Ocean View Dr.
Brookings, Oregon 97415

Phone
(503) 469-6053

August 12, 1992

TO: Mr. Harry Spencer
Growth Unlimited Nursery Inc.
P. O. Box 291
Langlois, OR, 97450

SUBJECT: Geological evaluations of Aquafers located in the
SE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 11, T.30S., R.15W., W.&M.
Coos County, Oregon

Dear Mr. Spencer:

The following presents the results of our geologic evaluation of the aquafers located in the above subject property.

The purpose of this report is to address the geology of the property with respect to the aquafers present in and under the property and to address the possible connection of the underground aquafers with the surface waters of Conner Creek.

SCOPE

The work performed for this report includes a review of the earlier reports of September 10, 1991 and October 5, 1991, review of published geologic information related to the property, digging of 22 soil boreholes of about 6 feet deep per borehole in the wetland areas of Conner Creek, mapping of these boreholes in the wetland area, core drilling of a 50 foot deep exploration hole near the middle of the wetland area using a truck mounted cable rig with two (2) foot long two (2) inch diameter core tube. The work also included evaluation of water bearing sands in the exploration hole and the monitoring of water rise in the various aquafers encountered in the hole.

TOPOGRAPHY

The study area consists of an open gentle sloped upper surface of a Pleistocene Marine Terrace through which the bogland of Conner Creek and its associated wetland dissects the property from a northeast to southwest direction, see Site map page 8. The grade of Conner Creek flows from about the middle part of the east border of the property in a southwest direction to the southwest corner on about a four (4) foot vertical drop per about four hundred (400) foot horizontal. Conner Creek flows through the wetland area in a

meander, but stays within the confines of the wetland and does not flow up against either bank on north or south margins of the wetland, see site map page 8 .

The slopes of the upper surface of the Marine Terrace are gentle towards Conner Creek on both the northwest and southeast upland areas of the property, see cross section Page 9, (note verticle scale exaggeration). The surface in the northwest of Conner Creek, has been terraced into flat benches for agriculture purposes, whereas the ground surface south of Conner Creek has not been desturbed and is original in slope.

SOIL CORES

Soil Borehole Cores were conducted throughout the bottom of the wetland area, see site map page 8 , and borehole logs Appendix A & B. The method of coring, consisted of a split spoon sampler with a total length of 6 feet. The sampler had a 2 inch core diameter and was collected in 1 foot intervals.

The purpose of the soil sampler and the 22 different boreholes drilled, was to establish the extent and areas in the wetland area underlain by clay. In this respect, 6 foot boreholes were drilled on about 200 foot centers along the north and south borders of the wetland and logs kept of each borehole drilled.

The borehole logs are shown on diagram Appendix B, and established the character and lithology of nearsurface materials throughout the wetland. In the vast majority of the boreholes, kaolinitic clay of extremely high purity was the predominate material. Several holes encountered Peat and other woody debris indicative of stagnant bog conditions in the recent geologic past. Soil Borehole #17 & #18 encountered sand near the bottom with #18 penetrating into bedrock shale. A creek flowing into the Conner Creek basin is present just east of boreholes #17 & #18, which is believed to ride upon bedrock. Boreholes 7-2, 8 & 9, also encountered sands in the bottom, which are believed to represent older channels of the creek, now buried and separated from the existing channel of Conner Creek by clays and peat.

EXPLORATION WELL HOLE

On August 11, 1992, an exploration well was drilled to total depth of about 50 feet (drillers Log) as shown on Appendix E. The well was drilled by Cable tool rig mounted on Ford Truck, which used a 2 inch diameter core barrel with 2 foot intervals per core. After each core recovery a six (6) inch casing was driven into the ground with bentonite packing used to seal the outside borehole of the casing from the annulus of the borehole. This was done for purposes of sealing off the uphole formations from the intervals being cored and drilled.

Two interval logs are given on the Appendix C, one which was provided by the well driller who logged from the surface of the dike road down and the other taken from the original sod of the bottom land down. The difference in depths between the to logged intervals of five (5) feet, corresponds to the difference in elevation between the top of the dike road and the upper surface of the sod in the original bottomland. The Material descriptions were from the two (2) foot cores drilled and bagged.

The purpose of the Exploration well, was to establish the total depth of the bogland or Conner Creek basin materials and to record, maintain separation and amounts of rise of any water encountered during the boring. In this case, one (1) unconfined water bearing strata was encountered near the surface between 6.25 and 9.83 feet (drillers log) and two (2) confined water bearing stratas at 22 to 23 feet and again at 40 to 50 feet.

The upper water bearing strata represents the original bog surface before construction of the dike road, and is believed connected to the creek. The water bearing strata between 22 and 23 feet, produced a natural rise of water inside the casing of about 5.42 feet in 9 minutes and of about 10.42 feet in 44 minutes. Depths to top of water in the cased hole was measured using an electronic dipper attached and made part of a steel measuring tape. The lower water bearing strata first drilled into at about 40 feet deep, produced a rise in water of 29 feet in 30 minutes.

The upper aquifer or water bearing strata is actually the surface water of the bog and not really a aquifer as it represents the burried upper surface of the bog trapped only in the area of the road dike which was constructed many years ago. The second aquifer between the intervals of 22 and 23 feet, represents a confined aquifer and is believed connected to the aquifer of the Marine Terrace. This second aquifer is rather poor in permeability as it is packed with clay and relatively thin. The lowest and third aquifer encountered, is also a confined aquifer and represents the lowest burried materials deposited during the early stages of filling in the Conner Creek Canyon. This lowest and third aquifer, appears to be connected to the second and confined aquifer encountered between 22 and 23, as the water rose in the casing 29 feet to about the same level as the water rise of the first aquifer. However since pumping was not conducted, the two confined aquifers which appeared separated by a clay aquatard, may or maynot be connected.

GEOLOGIC HISTORY

The materials and water encountered in the Soil Boreholes, Exploration well and topography of the area is believed to represent a transgression regression geologic history. The geology and formation materials of the area are shown in cross section page 9, and interpreted to have originated as follows:

Marine Terrace Development & Deposition

During the Late Pleistocene, the entire area was covered by the ocean corresponding to an interglacial period. This period is believed to be the Whiskey Run Terrace development or otherwise corresponding to the Sangamon interglacial. In the Sangamon or Whiskey Run period, the upper surface of the bedrock was peneplained to a nearly level but eroded surface. At the close of the Sangamon, the sea withdrew first by depositing gravels and then later sands up to a total thickness of about 100 feet or more in the area.

Coquille Formation of Conner Creek Canyon

During the Wisconsin glaciation (last great glacial stage) of the latest Pleistocene, sea level dropped throughout the world as caused by the building of ice on the Earths Continents. Total lowering of the ocean is believed

to have been about 400 feet during the Wisconsin Glacial stage. Because of this significant lower sea level, the coastal shoreline west of the property would likely have been several miles west of its present shoreline and several hundred feet lower than todays Mean Sea Level. Rivers such as the Coquille and Creeks such as Conner, continued to flow and thereby erode down through the Whiskey Run Marine Terrace and down into the bedrock materials. At such time in the greatest drop of sea level, the subject property would have had a canyon of about 80 feet or more deep with the materials of the Marine Terrace exposed along the upper portions of the canyon.

At the close of the Wisconsin Glacial period during the time interval of 20,000 to 15,000 years ago, sea level rose approximately 400 feet with an average rise of about 1 foot for every 70 years. Sea level continued to rise for the next 10,000 years at a much slower rate and has remained relatively stable for the last 5,000 years.

The materials present in the canyon of Conner Creek are believed contemporaneous to the Coquille Formation as defined by Baldwin (1945). These bedded materials in the Canyon of Conner Creek are not likely connected to Coquille Formation, unless connected in materials burried at sea.

In any case, the Conner Creek canyon materials as encountered in the entirety of the Exploration Well, were deposited during the close of the Wisconsin Glacial period. Although we do not have Carbon Dates for the logs or other organics encountered in the well, we believe these materials are of Late Wisconsin age. Such being the case, the first materials deposited in the canyon were gravels and sands, representing a fluvial depositional environment. (materials between 40 and 50 foot interval). These materials were deposited because of the backing up of the creek due to the transgression of sea level rise. Eventually the creek bottom land became gradually wider, where the creek would meander back and forth across its old channel basin, where trees and marshes developed and grew. This was the second stage of the canyon filling or deposition, and alternated between forrest land represented by trees and logs and of marsh land represented by clays. The second stage of filling is represented in the Exploration hole between intervals of 23 feet to 40 feet. At the end of this second stage of canyon deposition, the bedrock exposures of the canyon became completely filled (see cross section page 9). This resulted in a sheet deposition of sands which likely was derived from the adjacent and nearby Marine Terrace Formation upon and through which Conner Creek was finally able to penetrate. Whereas before, Conner Creek was confined inside the bedrock banks of the canyon wall and unable to meander out into the Marine Terrace materials, at such time when the canyon was filled up to the level of the older Marine Terrace/bedrock interface contact, the creek could then meander slightly over its older confines and out into the Marine Terrace formation. We believe this 3rd stage of canyon deposition resulted in the sand layer as encountered in the exploration hole between the interval of 22 and 23 feet. The last and 4th stage of canyon filling, is represented by the deposition of nearly pure kaolinitic clays. These clays are of Ball Type and represent a potential economic deposit. The clay is devoid of any sand, silt or impurities except for minor organics. We believe this Ball Clay was deposited during the last 5,000 to 10,000 years in a marsh or bog environment of acid conditions. The Ball Clay is at least 12 feet thick, as encountered in the exploration well, and is present throughout the basin of Conner Creek as encountered in the Soil Boreholes Appendix B. This last or 4th stage deposition, represents

a Holocene age but is continuous deposition of the filling of the old Conner Creek Canyon.

HYDROGEOLOGIC EVALUATIONS

We believe that the 3rd stage of Canyon Filled materials, represented on the Cross Section page as "3rd Stage Materials", is connected to the aquafer of the Marine Terrace materials as encountered in the Greenhouse well to the northwest and the SE well to the southeast. We also believe that the 1st stage Canyon Materials, represented by the Channel Gravel in the Cross Section page, is also connected to the 3rd stage materials aquafer and the Marine Terrace aquafer based on the nearly equal water level in the casing within 7 inches of each other. Water level of the upper water bearing material encountered in the exploration well, rose 1.5 feet to about the 6 $\frac{1}{2}$ foot level in the well which is nearly level with the water level of Conner Creek. We believe that this upper water bearing material encountered between the 6.25 and 9.83 foot depth in the well is connected to Conner Creek.

The water of the lowest aquafer (1st stage materials) and the water of the middle or second aquafer (3rd stage materials) rose to about 11 feet and 11.42 feet respectively for each aquafer, whereas the water of the upper aquafer (Sod and Creek level materials) rose to about 6.5 feet in the Exploration well. This represents a difference in static water levels of about 4.5 feet between the upper and middle aquifers and about 4.92 feet between the upper and lower aquifers as encountered in the exploration well.

CONCLUSIONS

The geologic history of the filling of Pleistocene Conner Creek canyon, resulted in the deposition of thick layers of very pure Ball Clay. This Ball clay composed of predominately Kaolinite, is thickest in the upper part of the formation (Stage 4 deposition), and forms an aquatard off which separates the perched aquafer of Conner Creek and its associated marsh wetland from the connected middle and lower aquifers of the canyon. These lower (1st and 3rd stage materials) aquifers are in the area of the buried canyon confined aquifers, but are believed connected to the aquafer of the Marine Terrace. Likewise, the water table of the Marine Terrace aquafer is likely lower than the level of Conner Creek by at least 4 or 5 feet, and has its developed gradient due to the drainage provided by the aquifers of the 1st and 3rd stage canyon filled materials, as indicated by the evidence gathered during July and August, 1992. Therefore, Conner Creek and its associated marsh is a perched water and aquafer separated from the Marine Terrace and the lower Canyon filled materials by the Ball Clay.

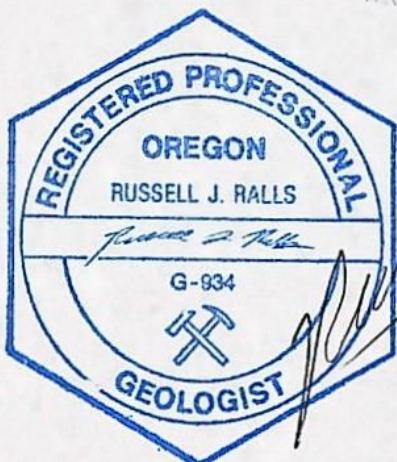
The Ball Clay deposited during the 4th stage of canyon filling, is believed to have been derived from the erosion of the hills to the east which is composed of Otter Point and Tertiary bedrock formations. The Ball Clay is of extremely high purity and thus is believed to be of economic value. Carbon and other organics in the clay are not contaminating as these can be burned out during firing or ceramic use. The Ball Clay is also of very low permeability due to its purity and relative thickness. Because of these characteristics, the Ball Clay deposit forms a major aquatard in the basin of Conner Creek.

LIMITATIONS

This report and the information presented herein, including opinions, interpretations and conclusions were derived in general professional geologic practice. This report and all contents is limited to the scope of work performed.

We are please to have been of service to you, and if there are questions concerning this report or the project site, please contact us.

Respectfully, yours,



Russell J. Ralls
Consulting Geologist

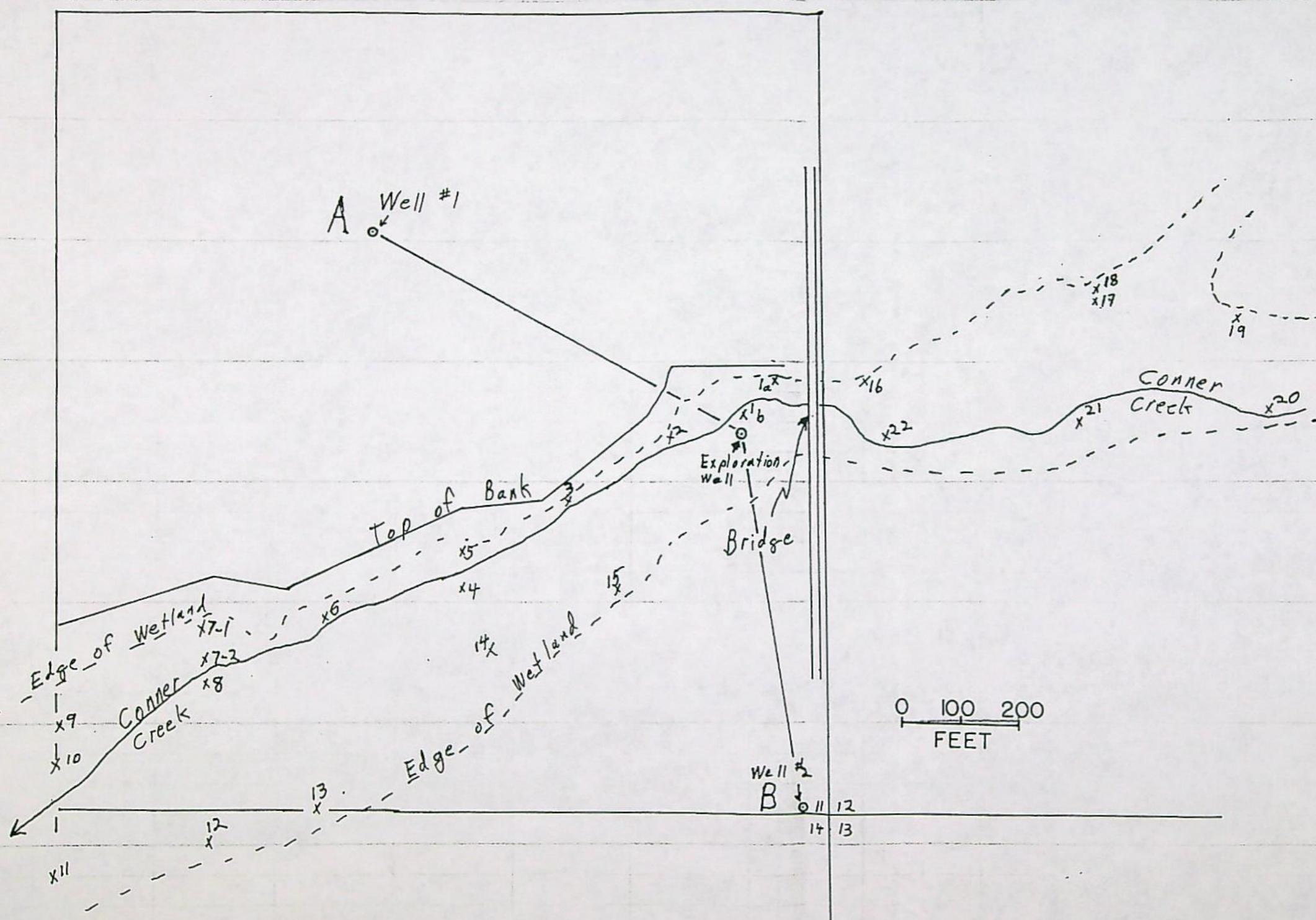
Mr. H. Spencer
August 12, 1992
Page 7

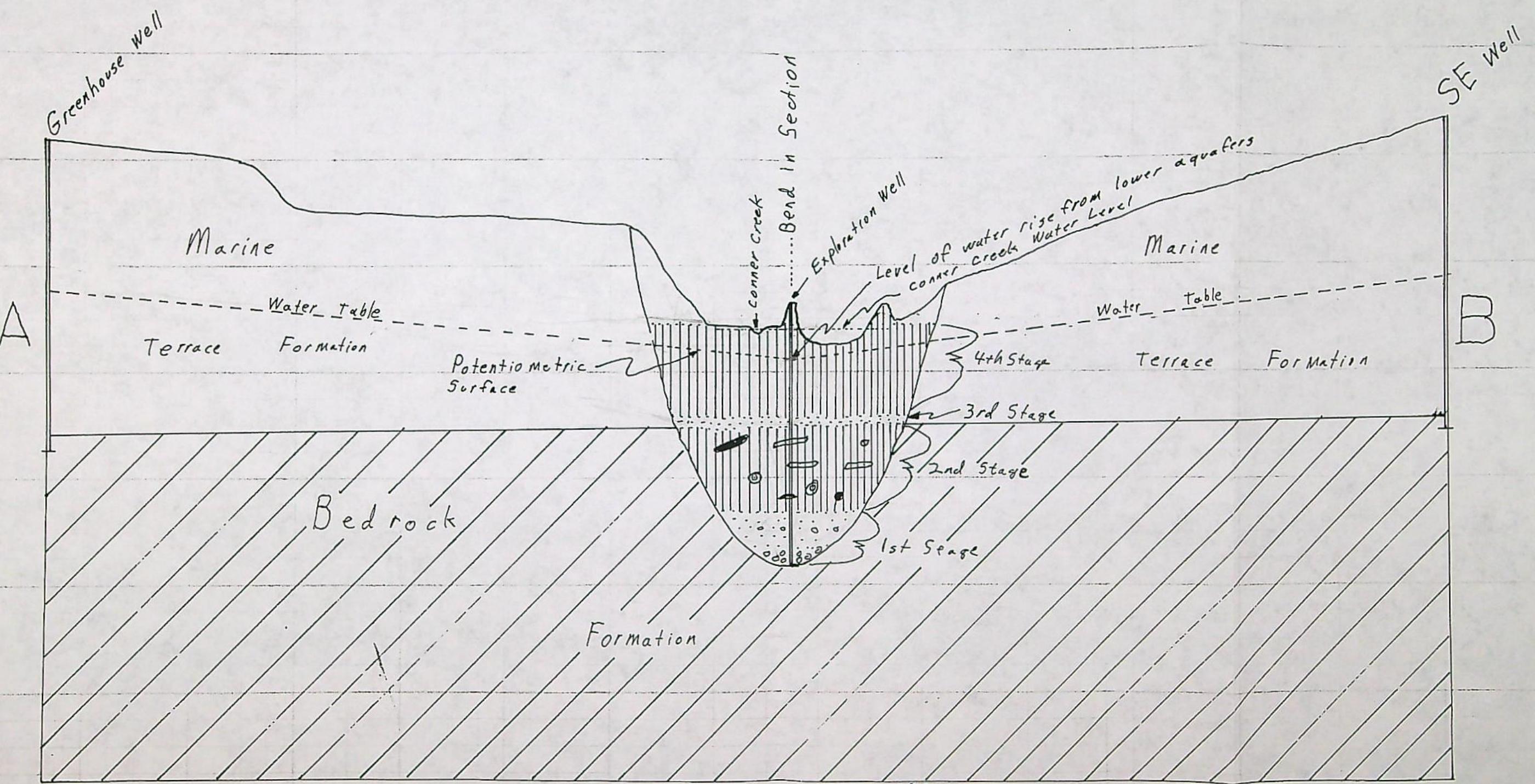
VICINITY MAP
U.S.G.S. 7½"



$$1 \text{ inch} = 1000 \text{ feet}$$

R. J. RALLS - GEOLOGIST





15
10
5 FEET
0 100

Vertical - 1 inch = 20 Feet
Horizontal - 1 inch = 100 Feet

PRE-DOMINATE Material



CLAY



SAND & GRAVEL



WOOD



BEDROCK SHALE

Core #1
a

0.0 - 1.0 feet Sod/sand, dark brown/grey, water saturated, soft and clayey
1.0 - 2.0 feet Sod/clay/sand, grey/brown, soft, water saturated
2.0 - 5.0 feet Clay, grey, soft on top firm on bottom, plastic and clean
5.0 - 5.5 feet Peat, brown, soft, clayey, damp but not water
5.5 - 6.0 feet Peat/clay, grey/brown, soft on top firm on bottom, plastic/clear

Core #1
b

0.0 - 1.0 feet Sod/sand, dark brown/grey, water saturated, soft and clayey
1.0 - 1.5 feet Sod/organics/clay, grey on bottom brown on top, soft/water
1.5 - 5.0 feet Clay, grey, soft on top firm on bottom, plastic and clean
5.0 - 5.2 feet Peat/clay, brown/grey, soft, damp but no water
5.2 - 6.0 feet Clay, grey to blue, firm and highly plastic

Core #2

0.0 - 1.0 feet Sand/sod, varigated & varicolored, water saturated
1.0 - 2.0 feet Sand on top clay on bottom, grey, soft, water onto top sand
2.0 - 3.0 feet Clay/roots, grey, semi soft to firm on bottom
3.0 - 5.5 feet Clay, clean, grey, no roots or organics, highly plastic
5.5 - 6.0 feet Sand, varigated & varicolored, water saturated

Core #3

0.0 - 1.0 feet Clay/Peat, grey to brown, soft/water
1.0 - 1.2 feet Peat, brown, soft and wet/water
1.2 - 4.0 feet Clay, grey, highly plastic, clean
4.0 - 4.5 feet Clay/sand, grey to brown, firm and plastic
4.5 - 5.5 feet Clay/silt and sand, soft in middle of core section/water
5.5 - 6.0 feet Log, soft and decomposed, damp in middle but not wet.

Core #4

0.0 - 1.0 feet Sod/clay, brown, soft/roots
1.0 - 2.0 feet Clay, grey, soft on top, firm on bottom, clean/some roots
2.0 - 3.5 feet Clay, grey on top to blue gray on bottom, clean and plastic
3.5 - 6.0 feet Clay, blue gray to blue on bottom, clean and highly plastic

Core #5

| | |
|----------------|--|
| 0.0 - 1.0 feet | Sod, brown, roots and plants, soft with water |
| 1.0 - 2.0 feet | Peat and Clay, brown on top clay/peat on bottom grey, water |
| 2.0 - 2.4 feet | Clay/Peat, Peat on top, clay on bottom, brown to grey, |
| 2.4 - 4.0 feet | Clay, grey, highly plastic, no organics, firm on bottom |
| 4.0 - 6.0 feet | Lost core, no water on bottom but water from top flowing down and swelling the clay. |

Core #6

| | |
|----------------|--|
| 0.0 - 1.0 feet | Sod, brown, roots and plants, soft with water from surface |
| 1.0 - 2.0 feet | Clay, brown/roots on top grey and firm on bottom |
| 2.0 - 4.5 feet | Clay, grey, firm and highly plastic |
| 4.5 - 5.0 feet | Clay/peat, soft, no water, brown |
| 5.0 - 6.0 feet | Clay, grey, firm to hard, purely plastic, pure clay |

Core #7-1

| | |
|----------------|------------------------------------|
| 0.0 - 3.0 feet | Log, large and soft |
| 3.0 - 4.0 feet | Peat/clay, firm, brownish grey |
| 4.0 - 4.3 feet | Log, hard, unable to core further. |

Core #7-2

| | |
|----------------|---|
| 0.0 - 1.0 feet | Log, large and soft |
| 1.0 - 2.0 feet | Peat, water saturated |
| 2.0 - 3.3 feet | Peat, Sand, brown, unconsolidated, water saturated, |
| 3.3 - 4.0 feet | Sand/clay on bottom, varigated & rounded, old creek bottom, water |
| 4.0 - 4.8 feet | Sand/clay, clayey on bottom, grey, soft on top firm on bottom |
| 4.8 - 6.0 feet | Clay, grey, highly plastic, clean pure clay |

Core #8

| | |
|----------------|---|
| 0.0 - 1.5 feet | Sod, roots and plants, sandy clay |
| 1.5 - 2.0 feet | Sod/sand/clay, brown sandy sod on top grading down to grey clay |
| 2.0 - 3.3 feet | Clay/sand, firm and plastic |
| 3.3 - 6.0 feet | Sand, coarse grained, varicolored, rounded, old creek channel |

Core #9

| | |
|----------------|---|
| 0.0 - 1.0 feet | Sod, roots, grey to brown, clayey |
| 1.0 - 1.9 feet | Clay/Peat, black to dark grey, |
| 1.9 - 4.0 feet | Sand, fine grained, water saturated, bottom of hole caving in of unconsolidated water sand. Water rise to 2.0 feet from top of hole |

Core #10

| | |
|----------------|--|
| 0.0 - 1.0 feet | Sod, grey to brown, clayey on bottom |
| 1.0 - 2.0 feet | Sod/Clay, dark grey, rotten egg smell |
| 2.0 - 3.0 feet | Clay/Sticks, grey to dark grey, rotten egg smell |
| 3.0 - 4.0 feet | Clay, grey, clean and plastic |
| 4.0 - 4.5 feet | Clay/peat, grey to dark brown, soft |
| 4.5 - 6.0 feet | Clay, grey, clean and plastic |

Core #11

| | |
|----------------|--|
| 0.0 - 1.0 feet | Sod, brown/soft clay |
| 1.0 - 6.0 feet | Clay, solid, plastic, very pure, grey in color to buff on bottom |

Core #12

| | |
|----------------|--|
| 0.0 - 1.0 feet | Sod/clay on bottom, brown to grey on bottom, slight water |
| 1.0 - 1.8 feet | Clay/Peat, soft and spongy, grey to brown, water saturated |
| 1.8 - 6.0 feet | Clay, grey, solid and pure, highly plastic |

Core #13

| | |
|----------------|-------------------------------------|
| 0.0 - 1.1 feet | Sod, brown |
| 1.1 - 6.0 feet | Clay, grey, pure and highly plastic |

Core #14

| | |
|----------------|---|
| 0.0 - 0.5 feet | Sod, soft with spongy peat |
| 0.5 - 6.0 feet | Clay, firm on bottom soft on top, pure grey and plastic |

Core #15

| | |
|----------------|---|
| 0.0 - 1.0 feet | Topsoil/sod, dark brown, soft with water |
| 1.0 - 3.0 feet | Clay, dark grey on top grading down to light grey on bottom |
| 3.0 - 6.0 feet | Clay, light grey, firm and highly plastic, very pure |

Core #16

| | |
|----------------|---|
| 0.0 - 1.0 feet | Peat with sod, brown to dark gray |
| 1.0 - 2.0 feet | Peat/clay, brownish grey, soft/water |
| 2.0 - 3.0 feet | Clay/Peat, grey to brown, firm on bottom |
| 3.0 - 4.0 feet | Clay, dark grey/organics, rotten egg smell |
| 4.0 - 4.8 feet | Clay, dark grey to brown/sticks, rotten egg smell |
| 4.8 - 6.0 feet | Clay, blue gray, pure and plastic |

Core #17

| | |
|----------------|--|
| 0.0 - 3.5 feet | Peat, soft and brown, no water |
| 3.5 - 6.0 feet | Sand, grey, varigated unconsolidated, some water |
| 6.0 - 6.5 feet | Sand/cobbles, cobbles of rounded bedrock clasts |

Core #18

| | |
|-----------------|---|
| 0.0 - 1.0 feet | Peat, brown and soft, water |
| 1.0 - 2.0 feet | Peat/sand, brown and varigated coarse sand |
| 2.0 - 3.0 feet | Sand/silt, grey, fine to medium grained |
| 3.0 - 4.1 feet | Sand & Gravel, brown and red, poorly sorted |
| 4.1 - 4.5 feet | Gravel, rounded and cobbles of bedrock |
| 4.5 - 5.0 feet | Gravel, cobbles and clay, light buff, hard on bottom |
| 5.0 - 5.25 feet | Bedrock, Shale/siltstone, hard, thin bedded/stEEP dip |

Core #19

| | |
|----------------|---|
| 0.0 - 1.0 feet | Peat, brown, soft, water |
| 1.0 - 2.0 feet | Clay/Peat on top, Grey to brown on top |
| 2.0 - 4.5 feet | Clay, grey, firm and plastic |
| 4.5 - 6.0 feet | Clay, grey to buff colored on bottom firm and plastic |

Core #20

| | |
|----------------|---|
| 0.0 - 0.5 feet | Sod, brown and soft, water |
| 0.5 - 2.0 feet | Clay, grey and soft, highly plastic, water on top |
| 2.0 - 6.0 feet | Clay, grey, pure and firm, highly plastic |

Core #21

| | |
|----------------|---|
| 0.0 - 1.0 feet | Sod/Peat, brown and soft, water |
| 1.0 - 2.2 feet | Clay, grey, plastic and pure |
| 2.2 - 3.0 feet | Clay sandy, firm and plastic, grey |
| 3.0 - 3.8 feet | Sandy clay, firm and plastic, grey, thick and stiff |
| 3.8 - 5.0 feet | Clay/sand, brown, semi firm, plastic and thick |
| 5.0 - 6.0 feet | Clay with some sand, grey brown, plastic and thick |

Core #22

| | |
|----------------|--|
| 0.0 - 1.0 feet | Sod, brown and organic, water |
| 1.0 - 3.5 feet | Clay, grey, pure and plastic, firm |
| 3.5 - 6.0 feet | clay, light buff, pure and plastic, firm to hard |

SKETCH OF SOIL LOGS

I_AI_B

2

3

4

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7-1

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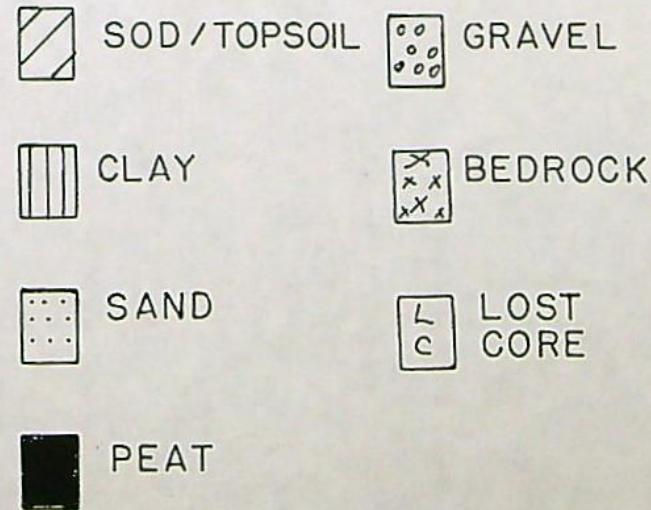
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EXPLORATION WELL LOG

Driller: Jim Mack, WWC #1493

Rig Type: Truck Mounted Cable Tool; Core Barrel Driven Type
2 inch Diameter & 2 feet long

Date Drilled: August 11, 1992

Total depth: 50 feet deep from top of dike road

Well Purpose: Exploration, 6 inch driven casing after each core

Well Driller Log

Core Description Log

| Depth Feet | Description | Depth Feet | Lithology |
|---------------|---|---------------|--|
| 0.0 - 6.0 | Clay, Blue Gray Not cored | | Not Cored |
| 6.0 - 6.25 | Sod, buried grass | 5.0 - 7.00 | Clay/Roots & Sand, Original Sod, Brown |
| 6.25 - 9.83 | Sand/gravel, med brown SWL 7 feet (1) | 7.00 - 9.00 | Clay/sand, water bearing |
| | | 9.00 - 11.00 | Clay/sand on top, grey |
| | | 11.00 - 13.00 | Clay, Blue grey, pure Ball Clay, no sand or silt |
| | | 13.00 - 15.00 | Clay, Blue grey, pure Ball Clay, highly plastic |
| 9.83 - 22.0 | Clay, Blue | 15.00 - 17.00 | Clay, Blue Grey as above |
| | | 17.00 - 19.00 | Clay, Blue Grey as above Stiff and plastic, |
| | | 19.00 - 21.00 | Clay, Blue grey, thick stiff and highly plastic & pure |
| | | 21.00 - 22.00 | Clay, blue grey lost part of bottom core |
| 22.00 - 23.0 | Sand, grey medium SWL 11 feet 7 inches (1) | 22.00 - 24.00 | Clay on top, Sand on bottom, Grey, Water bearing sands, Water rise 5.42 feet/9 minutes Water rise 10.42feet/44minutes |
| 23.00 - 24.0 | Clay/wood, grey | 24.00 - 26.00 | Clay/sand, medium grey Wood on bottom |
| 24.00 - 29.0 | Sand/clay & wood | 26.00 - 28.00 | Clay/sand & wood mixed, grey |
| 29.00 - 30.0 | Clay/sand, Grey | 28.00 - 30.00 | Clay, some sand & wood, dk grey to light grey |
| 30.00 - 32.0 | Wood/clay, grey brown | 30.00 - 32.00 | Wood/clay & Sand, med/dk grey |
| 32.00 - 34.0 | Clay/wood, Grey brown | 32.00 - 34.00 | Clay, grey, pure no sand or wood |

Well Drillers Log

Core Description Log

| <u>Depth</u> <u>Feet</u> | <u>Description</u> | <u>Depth</u> <u>Feet</u> | <u>Lithology</u> |
|-----------------------------|---|-----------------------------|--|
| 34.0 - 40.0 | Clay/wood, grey brown | 34.00 - 36.00 | Clay, Grey, some sand & wood on bottom |
| 40.00 - 42.0 | Gravel/clay & wood, Water bearing SWL 11 feet (1) | 36.00 - 38.00 | Clay/wood, no sand, grey to dk grey |
| 42.00 - 50.0 | Sand/gravel & wood, water bearing | 38.00 - 40.00 | Lost Core |
| 50.00+ | Shale, Claystone | 40.00 - 42.00 | Sand/Pebbles, Varigated & Rounded, Water bearing Water rise 29feet/30 minutes |
| | | 42.00 - 50.00 | No Core, |
| | | 50.00+ | Bottom hole core composed of shale and clay. |

(1) Water rise measured inside sealed casing using electronic dipper.
Water rise measured from top of interval as shown.

New Well @ SE Cor. Sec. 11
Croft Piece

Appendix D-2

T30S/R15W/11

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

(START CARD) # 26375

(1) OWNER: Well Number: 112
Name: Henry Springer / C. 111.111.111.111
Address:

City _____ State _____ Zip _____

(2) TYPE OF WORK:

New Well Deepen Recondition Abandon

(3) DRILL METHOD:

Rotary Air Rotary Mud Cable
 Other _____

(4) PROPOSED USE:

Domestic Community Industrial Irrigation
 Thermal Injection Other _____

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes No Depth of Completed Well 51 1/2 ft.

Yes No

Explosives used Type _____ Amount _____

| HOLE | SEAL | | Amount | | | | |
|------|------|----|--------|-----------|------|----|-----------------|
| | From | To | | Material | From | To | sacks or pounds |
| 10 | 0 | 25 | 1300 # | Expansite | 0 | 25 | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

How was seal placed: Method A B C D E

Other Introduced from Surface

Backfill placed from _____ ft. to _____ ft. Material _____

Gravel placed from _____ ft. to _____ ft. Size of gravel _____

(6) CASING/LINER:

| Diameter | From | To | Gauge | Steel | Plastic | Welded | Threaded |
|------------|------|-----|-------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| Casing: 6" | +18" | 36" | .25" | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" 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"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Liner: | | | | <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"/> |

Final location of sheets)

(7) PERFORATIONS/SCREENS:

| Perforations | | Method | | Type | | Material | |
|--------------|-----------|-----------|--------|----------|----------------|-------------------------------------|--------------------------|
| From | To | Slot size | Number | Diameter | Tele/pipe size | Casing | Liner |
| 31' 0" | 43' 7" | .016 | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 43' 7" | 48' 8" | .012 | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 48' 8" | 54' 1" | .014 | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 54' 1" | 56' 1/2" | | | 6" | 7/8" | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 56' 1/2" | 58' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 58' 1/2" | 59' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 59' 1/2" | 60' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 60' 1/2" | 61' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 61' 1/2" | 62' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 62' 1/2" | 63' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 63' 1/2" | 64' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 64' 1/2" | 65' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 65' 1/2" | 66' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 66' 1/2" | 67' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 67' 1/2" | 68' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 68' 1/2" | 69' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 69' 1/2" | 70' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 70' 1/2" | 71' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 71' 1/2" | 72' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 72' 1/2" | 73' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 73' 1/2" | 74' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 74' 1/2" | 75' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 75' 1/2" | 76' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 76' 1/2" | 77' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 77' 1/2" | 78' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 78' 1/2" | 79' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 79' 1/2" | 80' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 80' 1/2" | 81' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 81' 1/2" | 82' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 82' 1/2" | 83' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 83' 1/2" | 84' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 84' 1/2" | 85' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 85' 1/2" | 86' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 86' 1/2" | 87' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 87' 1/2" | 88' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 88' 1/2" | 89' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 89' 1/2" | 90' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 90' 1/2" | 91' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 91' 1/2" | 92' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 92' 1/2" | 93' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 93' 1/2" | 94' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 94' 1/2" | 95' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 95' 1/2" | 96' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 96' 1/2" | 97' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 97' 1/2" | 98' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 98' 1/2" | 99' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 99' 1/2" | 100' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 100' 1/2" | 101' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 101' 1/2" | 102' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 102' 1/2" | 103' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 103' 1/2" | 104' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 104' 1/2" | 105' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 105' 1/2" | 106' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 106' 1/2" | 107' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 107' 1/2" | 108' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 108' 1/2" | 109' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 109' 1/2" | 110' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 110' 1/2" | 111' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 111' 1/2" | 112' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 112' 1/2" | 113' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 113' 1/2" | 114' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 114' 1/2" | 115' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 115' 1/2" | 116' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 116' 1/2" | 117' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 117' 1/2" | 118' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 118' 1/2" | 119' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 119' 1/2" | 120' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 120' 1/2" | 121' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 121' 1/2" | 122' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 122' 1/2" | 123' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 123' 1/2" | 124' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 124' 1/2" | 125' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 125' 1/2" | 126' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 126' 1/2" | 127' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 127' 1/2" | 128' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 128' 1/2" | 129' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 129' 1/2" | 130' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 130' 1/2" | 131' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 131' 1/2" | 132' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 132' 1/2" | 133' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 133' 1/2" | 134' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 134' 1/2" | 135' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 135' 1/2" | 136' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 136' 1/2" | 137' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 137' 1/2" | 138' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 138' 1/2" | 139' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 139' 1/2" | 140' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 140' 1/2" | 141' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 141' 1/2" | 142' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 142' 1/2" | 143' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 143' 1/2" | 144' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 144' 1/2" | 145' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 145' 1/2" | 146' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 146' 1/2" | 147' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 147' 1/2" | 148' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 148' 1/2" | 149' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 149' 1/2" | 150' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 150' 1/2" | 151' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 151' 1/2" | 152' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 152' 1/2" | 153' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 153' 1/2" | 154' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 154' 1/2" | 155' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 155' 1/2" | 156' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 156' 1/2" | 157' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 157' 1/2" | 158' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 158' 1/2" | 159' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 159' 1/2" | 160' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 160' 1/2" | 161' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 161' 1/2" | 162' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 162' 1/2" | 163' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 163' 1/2" | 164' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 164' 1/2" | 165' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 165' 1/2" | 166' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 166' 1/2" | 167' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 167' 1/2" | 168' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 168' 1/2" | 169' 1/2" | | | 6" | 7/8" | <input type="checkbox"/> | <input type="checkbox"/> |
| 169' 1/2" | 170' 1/2" | | | 6" | | | |