

ok. [Signature]

MEMO

To: Kristopher Byrd, Well Construction and Compliance Section Manager
From: Joel Jeffery, Well Construction Program Coordinator
Subject: Review of Water Right Application G-18506
Date: July 16, 2018

The attached application was forwarded to the Well Construction and Compliance Section by Water Rights. Mike Thoma reviewed the application. Please see Mike's Groundwater Review and the Well Logs.

Applicant's Well #1 (JOSE 16480): Based on a review of the Well Report, Applicant's Well #1 appears to protect the groundwater resource.

The construction of Applicants Well #1 may not satisfy hydraulic connection issues.

Applicant's Well #2 (JOSE 17768): Based on a review of the Well Report, Applicant's Well #2 appears to protect the groundwater resource.

The construction of Applicant's Well #2 may not satisfy hydraulic connection issues.

Applicant's Well #3 (JOSE 1799): Based on a review of the Well Report, Applicant's Well #3 does not appear to comply with current minimum well construction standards (See OAR 690 Division 210). The annular seal is not adequate. In order to meet minimum well construction standards, the well must be resealed to a minimum depth of 65 feet below ground surface.

My recommendation is that the Department **not issue** a permit for Applicant's Well #3 (JOSE 1799) unless it is brought into compliance with current minimum well construction standards or information is provided showing that it is in compliance with current minimum well construction standards.

Bringing Applicant's Well #3 into compliance with minimum well construction standards may not satisfy hydraulic connection issues.

NOTICE TO WATER WELL CONTRACTOR

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

RECEIVED
DEC 18 1972

WATER WELL REPORT

STATE OF OREGON

STATE ENGINEER, SALEM, OREGON 97310

within 30 days from the date of well completion.

STATE ENGINEER
SALEM, OREGON

(Please type or print)

(Do not write above this line)

State Well No. 375/5W-25

State Permit No.

Jose
1799

ab

(1) OWNER:

Name Bob Hodge
Address 12579 No. Applegate Rd, Grants Pass Ore

(2) TYPE OF WORK (check):

New Well Deepening Reconditioning Abandon

If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:

Rotary Cable Auger Driven Jetted Bored

(4) PROPOSED USE (check):

Domestic Industrial Municipal Irrigation Test Well Other

(5) CASING INSTALLED:

6" Diam. from 0 ft. to 70 ft. Gage 250
" Diam. from _____ ft. to _____ ft. Gage _____
" Diam. from _____ ft. to _____ ft. Gage _____

(6) PERFORATIONS:

Perforated? Yes No

Type of perforator used _____

Table with columns: Size of perforations, in. by, in., ft. to, ft.

(7) SCREENS:

Well screen installed? Yes No

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

(8) WELL TESTS:

Drawdown is amount water level is lowered below static level

Was a pump test made? Yes No If yes, by whom?
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
#1
#2
#3
#4
#5
#6
#7
#8
#9
#10
#11
#12
#13
#14
#15
#16
#17
#18
#19
#20
#21
#22
#23
#24
#25
#26
#27
#28
#29
#30
#31
#32
#33
#34
#35
#36
#37
#38
#39
#40
#41
#42
#43
#44
#45
#46
#47
#48
#49
#50
#51
#52
#53
#54
#55
#56
#57
#58
#59
#60
#61
#62
#63
#64
#65
#66
#67
#68
#69
#70
#71
#72
#73
#74
#75
#76
#77
#78
#79
#80
#81
#82
#83
#84
#85
#86
#87
#88
#89
#90
#91
#92
#93
#94
#95
#96
#97
#98
#99
#100
#101
#102
#103
#104
#105
#106
#107
#108
#109
#110
#111
#112
#113
#114
#115
#116
#117
#118
#119
#120
#121
#122
#123
#124
#125
#126
#127
#128
#129
#130
#131
#132
#133
#134
#135
#136
#137
#138
#139
#140
#141
#142
#143
#144
#145
#146
#147
#148
#149
#150
#151
#152
#153
#154
#155
#156
#157
#158
#159
#160
#161
#162
#163
#164
#165
#166
#167
#168
#169
#170
#171
#172
#173
#174
#175
#176
#177
#178
#179
#180
#181
#182
#183
#184
#185
#186
#187
#188
#189
#190
#191
#192
#193
#194
#195
#196
#197
#198
#199
#200
#201
#202
#203
#204
#205
#206
#207
#208
#209
#210
#211
#212
#213
#214
#215
#216
#217
#218
#219
#220
#221
#222
#223
#224
#225
#226
#227
#228
#229
#230
#231
#232
#233
#234
#235
#236
#237
#238
#239
#240
#241
#242
#243
#244
#245
#246
#247
#248
#249
#250
#251
#252
#253
#254
#255
#256
#257
#258
#259
#260
#261
#262
#263
#264
#265
#266
#267
#268
#269
#270
#271
#272
#273
#274
#275
#276
#277
#278
#279
#280
#281
#282
#283
#284
#285
#286
#287
#288
#289
#290
#291
#292
#293
#294
#295
#296
#297
#298
#299
#300
#301
#302
#303
#304
#305
#306
#307
#308
#309
#310
#311
#312
#313
#314
#315
#316
#317
#318
#319
#320
#321
#322
#323
#324
#325
#326
#327
#328
#329
#330
#331
#332
#333
#334
#335
#336
#337
#338
#339
#340
#341
#342
#343
#344
#345
#346
#347
#348
#349
#350
#351
#352
#353
#354
#355
#356
#357
#358
#359
#360
#361
#362
#363
#364
#365
#366
#367
#368
#369
#370
#371
#372
#373
#374
#375
#376
#377
#378
#379
#380
#381
#382
#383
#384
#385
#386
#387
#388
#389
#390
#391
#392
#393
#394
#395
#396
#397
#398
#399
#400
#401
#402
#403
#404
#405
#406
#407
#408
#409
#410
#411
#412
#413
#414
#415
#416
#417
#418
#419
#420
#421
#422
#423
#424
#425
#426
#427
#428
#429
#430
#431
#432
#433
#434
#435
#436
#437
#438
#439
#440
#441
#442
#443
#444
#445
#446
#447
#448
#449
#450
#451
#452
#453
#454
#455
#456
#457
#458
#459
#460
#461
#462
#463
#464
#465
#466
#467
#468
#469
#470
#471
#472
#473
#474
#475
#476
#477
#478
#479
#480
#481
#482
#483
#484
#485
#486
#487
#488
#489
#490
#491
#492
#493
#494
#495
#496
#497
#498
#499
#500
#501
#502
#503
#504
#505
#506
#507
#508
#509
#510
#511
#512
#513
#514
#515
#516
#517
#518
#519
#520
#521
#522
#523
#524
#525
#526
#527
#528
#529
#530
#531
#532
#533
#534
#535
#536
#537
#538
#539
#540
#541
#542
#543
#544
#545
#546
#547
#548
#549
#550
#551
#552
#553
#554
#555
#556
#557
#558
#559
#560
#561
#562
#563
#564
#565
#566
#567
#568
#569
#570
#571
#572
#573
#574
#575
#576
#577
#578
#579
#580
#581
#582
#583
#584
#585
#586
#587
#588
#589
#590
#591
#592
#593
#594
#595
#596
#597
#598
#599
#600
#601
#602
#603
#604
#605
#606
#607
#608
#609
#610
#611
#612
#613
#614
#615
#616
#617
#618
#619
#620
#621
#622
#623
#624
#625
#626
#627
#628
#629
#630
#631
#632
#633
#634
#635
#636
#637
#638
#639
#640
#641
#642
#643
#644
#645
#646
#647
#648
#649
#650
#651
#652
#653
#654
#655
#656
#657
#658
#659
#660
#661
#662
#663
#664
#665
#666
#667
#668
#669
#670
#671
#672
#673
#674
#675
#676
#677
#678
#679
#680
#681
#682
#683
#684
#685
#686
#687
#688
#689
#690
#691
#692
#693
#694
#695
#696
#697
#698
#699
#700
#701
#702
#703
#704
#705
#706
#707
#708
#709
#710
#711
#712
#713
#714
#715
#716
#717
#718
#719
#720
#721
#722
#723
#724
#725
#726
#727
#728
#729
#730
#731
#732
#733
#734
#735
#736
#737
#738
#739
#740
#741
#742
#743
#744
#745
#746
#747
#748
#749
#750
#751
#752
#753
#754
#755
#756
#757
#758
#759
#760
#761
#762
#763
#764
#765
#766
#767
#768
#769
#770
#771
#772
#773
#774
#775
#776
#777
#778
#779
#780
#781
#782
#783
#784
#785
#786
#787
#788
#789
#790
#791
#792
#793
#794
#795
#796
#797
#798
#799
#800
#801
#802
#803
#804
#805
#806
#807
#808
#809
#810
#811
#812
#813
#814
#815
#816
#817
#818
#819
#820
#821
#822
#823
#824
#825
#826
#827
#828
#829
#830
#831
#832
#833
#834
#835
#836
#837
#838
#839
#840
#841
#842
#843
#844
#845
#846
#847
#848
#849
#850
#851
#852
#853
#854
#855
#856
#857
#858
#859
#860
#861
#862
#863
#864
#865
#866
#867
#868
#869
#870
#871
#872
#873
#874
#875
#876
#877
#878
#879
#880
#881
#882
#883
#884
#885
#886
#887
#888
#889
#890
#891
#892
#893
#894
#895
#896
#897
#898
#899
#900
#901
#902
#903
#904
#905
#906
#907
#908
#909
#910
#911
#912
#913
#914
#915
#916
#917
#918
#919
#920
#921
#922
#923
#924
#925
#926
#927
#928
#929
#930
#931
#932
#933
#934
#935
#936
#937
#938
#939
#940
#941
#942
#943
#944
#945
#946
#947
#948
#949
#950
#951
#952
#953
#954
#955
#956
#957
#958
#959
#960
#961
#962
#963
#964
#965
#966
#967
#968
#969
#970
#971
#972
#973
#974
#975
#976
#977
#978
#979
#980
#981
#982
#983
#984
#985
#986
#987
#988
#989
#990
#991
#992
#993
#994
#995
#996
#997
#998
#999
#1000

(9) CONSTRUCTION:

Well seal—Material used Cement
Well sealed from land surface to 23 ft.
Diameter of well bore to bottom of seal 9 in.
Diameter of well bore below seal 6 in.
Number of sacks of cement used in well seal 4 sacks
Number of sacks of bentonite used in well seal _____ sacks
Brand name of bentonite _____
Number of pounds of bentonite per 100 gallons of water _____ lbs./100 gals.
Was a drive shoe used? Yes No Plugs _____ Size: location _____ ft.
Did any strata contain unusable water? Yes No
Type of water? _____ depth of strata _____
Method of sealing strata off _____
Was well gravel packed? Yes No Size of gravel: _____
Gravel placed from _____ ft. to _____ ft.

(10) LOCATION OF WELL:

County Josephine Driller's well number _____
NW 1/4 NE 1/4 Section 25 T. 37. R. 5W W.M. _____
Bearing and distance from section or subdivision corner _____

(11) WATER LEVEL: Completed well.

Depth at which water was first found 125 ft.
Static level 12 ft. below land surface. Date 12-5-72
Artesian pressure _____ lbs. per square inch. Date _____

(12) WELL LOG:

Diameter of well below casing 6
Depth drilled 136 ft. Depth of completed well 136 ft.

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

Table with columns: MATERIAL, From, To, SWL

Work started 12-5 1972 Completed 12-5 1972
Date well drilling machine moved off of well 12-5 1972

Drilling Machine Operator's Certification:

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

[Signed] Robert R. Earnest Date 12-11, 1972
(Drilling Machine Operator)
Drilling Machine Operator's License No. 695

Water Well Contractor's Certification:

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

Name George M. McEwen
(Person, firm or corporation) (Type or print)
Address 730 N. E. Elsie Dr. Grants Pass Ore
[Signed] George M. McEwen
(Water Well Contractor)
Contractor's License No. 492 Date 12-11, 1972

Groundwater Application Review Summary Form

Application # G- 18506

GW Reviewer M. Thoma Date Review Completed: 07-10-18

Summary of GW Availability and Injury Review:

Groundwater for the proposed use is either over appropriated, will not likely be available in the amounts requested without injury to prior water rights, OR will not likely be available within the capacity of the groundwater resource per Section B of the attached review form.

Summary of Potential for Substantial Interference Review:

There is the potential for substantial interference per Section C of the attached review form.

Summary of Well Construction Assessment:

The well does not appear to meet current well construction standards per Section D of the attached review form. Route through Well Construction and Compliance Section.
07/10/18

This is only a summary. Documentation is attached and should be read thoroughly to understand the basis for determinations and for conditions that may be necessary for a permit (if one is issued).

PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO: Water Rights Section Date 07/10/2018
 FROM: Groundwater Section Michael Thoma
 Reviewer's Name
 SUBJECT: Application G- 18506 Supersedes review of _____
 Date of Review(s)

PUBLIC INTEREST PRESUMPTION; GROUNDWATER

OAR 690-310-130 (1) *The Department shall presume that a proposed groundwater use will ensure the preservation of the public welfare, safety and health as described in ORS 537.525.* Department staff review groundwater applications under OAR 690-310-140 to determine whether the presumption is established. OAR 690-310-140 allows the proposed use be modified or conditioned to meet the presumption criteria. **This review is based upon available information and agency policies in place at the time of evaluation.**

A. GENERAL INFORMATION: Applicant's Name: Robert Hodge County: Josephine

A1. Applicant(s) seek(s) 0.07 cfs from 3 well(s) in the Rogue Basin,
Applegate subbasin

A2. Proposed use Irrigation (5.5 acres) and Reservoir Maintenance (0.9 AF/yr)
 Seasonality: Apr. 1 – Nov. 1 for Irrigation (214 d); Mar. 1 – Nov. 1 for Reservoir Maintenance (246 d)

A3. Well and aquifer data (**attach and number logs for existing wells; mark proposed wells as such under logid**):

Well	Logid	Applicant's Well #	Proposed Aquifer*	Proposed Rate(cfs)	Location (T/R-S QQ-Q)	Location, metes and bounds, e.g. 2250' N, 1200' E fr NW cor S 36
1	JOSE 16480	1	Bedrock	0.07	37S/05W-25 NWNE	1220'S, 2620'W of NE cor S 25
2	JOSE 17768	2	Bedrock	0.07	37S/05W-25 NWNE	400'S, 2520'W of NE cor S 25
3	JOSE 1799	3	Bedrock	0.07	37S/05W-25 NWNE	290'S, 2040'W of NE cor S 25
4						

* Alluvium, CRB, Bedrock

Well	Well Elev ft msl	First Water ft bls	SWL ft bls	SWL Date	Well Depth (ft)	Seal Interval (ft)	Casing Intervals (ft)	Liner Intervals (ft)	Perforations Or Screens (ft)	Well Yield (gpm)	Draw Down (ft)	Test Type
1	1505	100	80	06/15/1993	140	0-20	+2-88	-	-	60		A
2	1562	100	60	7/17/1995	120	0-30	+2-98	-	-	25		A
3	1600	125	12	12/5/1972	136	0-23	0-70	-	-	15		A

Use data from application for proposed wells.

A4. **Comments:** _____

A5. **Provisions of the Rogue (690-515)** Basin rules relative to the development, classification and/or management of groundwater hydraulically connected to surface water **are,** or **are not,** activated by this application. (Not all basin rules contain such provisions.)
 Comments: _____

A6. **Well(s) #** _____, _____, _____, _____, _____, tap(s) an aquifer limited by an administrative restriction.
 Name of administrative area: _____
 Comments: _____

B. GROUNDWATER AVAILABILITY CONSIDERATIONS, OAR 690-310-130, 400-010, 410-0070

B1. **Based upon available data**, I have determined that groundwater* for the proposed use:

- a. is over appropriated, is not over appropriated, or **cannot be determined to be** over appropriated during any period of the proposed use. * This finding is limited to the groundwater portion of the over-appropriation determination as prescribed in OAR 690-310-130;
- b. **will not** or **will** likely be available in the amounts requested without injury to prior water rights. * This finding is limited to the groundwater portion of the injury determination as prescribed in OAR 690-310-130;
- c. **will not** or **will** likely to be available within the capacity of the groundwater resource; or
- d. **will, if properly conditioned**, avoid injury to existing groundwater rights or to the groundwater resource:
 - i. The permit should contain condition #(s) 7C (7-yr SWL); 7J (Scenic); Medium Water-use Reporting ;
 - ii. The permit should be conditioned as indicated in item 2 below.
 - iii. The permit should contain special condition(s) as indicated in item 3 below;

- B2. a. **Condition** to allow groundwater production from no deeper than _____ ft. below land surface;
- b. **Condition** to allow groundwater production from no shallower than _____ ft. below land surface;
- c. **Condition** to 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. The problems that are likely to occur with this use and without reconstructing are cited below. Without reconstruction, I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and approved by the Groundwater Section.

Describe injury –as related to water availability– that is likely to occur without well reconstruction (interference w/ senior water rights, not within the capacity of the resource, etc): _____

B3. **Groundwater availability remarks:** The applicant’s proposed POAs are in an area where there is very sparse water-level data so groundwater over-appropriation cannot be determined. The nearest water-level data is from a well approx. 1 mile away and down slope in the Missouri Flats area. The Missouri Flats part of the aquifer system seems to show moderate responses to climate signals but no overall declining trends. There are a few permitted groundwater POAs in the vicinity of the proposed POAs but it is unlikely that there will be significant interference or injury given the low appropriation rate proposed on this application and tax lot density in the area.

C. GROUNDWATER/SURFACE WATER CONSIDERATIONS, OAR 690-09-040

C1. **690-09-040 (1):** Evaluation of aquifer confinement:

Well	Aquifer or Proposed Aquifer	Confined	Unconfined
1	Fractured Bedrock of Grayback Pluton	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Fractured Bedrock of Grayback Pluton	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Fractured Bedrock of Grayback Pluton	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>

Basis for aquifer confinement evaluation: Driller’s logs for the proposed POAs, along with logs from other wells in the area, generally report considerably higher SWL than First Water suggesting locally confined aquifer conditions. However, fractured bedrock aquifers in the area are typically exposed at the surface and confined by the near-surface weathered material (saprolite) which varies in thickness and degree of weathering – and thus degree of confinement.

C2. **690-09-040 (2) (3):** Evaluation of distance to, and hydraulic connection with, surface water sources. All wells located a horizontal distance less than ¼ mile from a surface water source that produce water from an unconfined aquifer shall be assumed to be hydraulically connected to the surface water source. Include in this table any streams located beyond one mile that are evaluated for PSI.

Well	SW #	Surface Water Name	GW Elev ft msl	SW Elev ft msl	Distance (ft)	Hydraulically Connected?			Potential for Subst. Interfer. Assumed?	
						YES	NO	ASSUMED	YES	NO
1	1	Miller Cr	1425	1400-1500	1340	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	2	Miners Cr	1425	1340-1500	3580	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	1	Miller Cr	1482	1470-1600	1540	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	2	Miners Cr	1482	1400-1580	3880	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	1	Miller Cr	1588	1470-1600	2020	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	2	Miners Cr	1588	1400-1580	3490	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Basis for aquifer hydraulic connection evaluation: Groundwater elevations are coincident or above surface water elevations, implying that groundwater is flowing towards and discharging to surface water.

Water Availability Basin the well(s) are located within: Applegate R > Rogue R – At Mouth (ID# 249)

C3a. **690-09-040 (4):** Evaluation of stream impacts for each well that has been determined or assumed to be hydraulically connected and less than 1 mile from a surface water source. Limit evaluation to instream rights and minimum stream flows that are pertinent to that surface water source, and not lower SW sources to which the stream under evaluation is tributary. Compare the requested rate against the 1% of 80% natural flow for the pertinent Water Availability Basin (WAB). If Q is not distributed by well, use full rate for each well. Any checked box indicates the well is assumed to have the potential to cause PSI.

Well	SW #	Well < ¼ mile?	Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
1	1	<input type="checkbox"/>	<input type="checkbox"/>	MF249	120	<input type="checkbox"/>	45.8	<input type="checkbox"/>	<< 25%	<input type="checkbox"/>
1	2	<input type="checkbox"/>	<input type="checkbox"/>	MF249	120	<input type="checkbox"/>	45.8	<input type="checkbox"/>	<< 25%	<input type="checkbox"/>
2	1	<input type="checkbox"/>	<input type="checkbox"/>	MF249	120	<input type="checkbox"/>	45.8	<input type="checkbox"/>	<< 25%	<input type="checkbox"/>
2	2	<input type="checkbox"/>	<input type="checkbox"/>	MF249	120	<input type="checkbox"/>	45.8	<input type="checkbox"/>	<< 25%	<input type="checkbox"/>
3	1	<input type="checkbox"/>	<input type="checkbox"/>	MF249	120	<input type="checkbox"/>	45.8	<input type="checkbox"/>	<< 25%	<input type="checkbox"/>
3	2	<input type="checkbox"/>	<input type="checkbox"/>	MF249	120	<input type="checkbox"/>	45.8	<input type="checkbox"/>	<< 25%	<input type="checkbox"/>

Comments: Interference @ 30 days was estimated using the Hunt (2003) stream-depletion model with hydraulic parameter values within the range expected for fractured bedrock aquifer systems. Estimated impacts using a range of values are consistently well-below the 25% interference required for an automatic assumption of PSI per OAR 690-009.

C3b. **690-09-040 (4):** Evaluation of stream impacts by total appropriation for all wells determined or assumed to be **hydraulically connected and less than 1 mile** from a surface water source. **Complete only if Q is distributed among wells.** Otherwise same evaluation and limitations apply as in C3a above.

SW #	Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

Comments: _____

C4a. **690-09-040 (5):** Estimated impacts on **hydraulically connected surface water sources greater than one mile** as a percentage of the proposed pumping rate. Limit evaluation to the effects that will occur up to one year after pumping begins. This table encompasses the considerations required by 09-040 (5)(a), (b), (c) and (d), which are not included on this form. Use additional sheets if calculated flows from more than one WAB are required.

Non-Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS	No streams were evaluated beyond 1 mile												
Interference CFS													
Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
(A) = Total Interf.													
(B) = 80 % Nat. Q													
(C) = 1 % Nat. Q													
(D) = (A) > (C)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(E) = (A / B) x 100		%	%	%	%	%	%	%	%	%	%	%	%

(A) = total interference as CFS; (B) = WAB calculated natural flow at 80% exceed. as CFS; (C) = 1% of calculated natural flow at 80% exceed. as CFS; (D) = highlight the checkmark for each month where (A) is greater than (C); (E) = total interference divided by 80% flow as percentage.

Basis for impact evaluation: _____

C4b. **690-09-040 (5) (b)** The potential to impair or detrimentally affect the public interest is to be determined by the Water Rights Section.

C5. **If properly conditioned**, the surface water source(s) can be adequately protected from interference, and/or groundwater use under this permit can be regulated if it is found to substantially interfere with surface water:
 i. The permit should contain condition #(s) _____;
 ii. The permit should contain special condition(s) as indicated in "Remarks" below;

C6. **SW / GW Remarks and Conditions:** The applicant's proposed POAs would be producing from an aquifer that has been found to be hydraulically-connected to surface water at a distance of < 1 mile. However, the proposed rate is < 1 % of the pertinent adopted perennial streamflow and instream water right for the encompassing Water Availability Basin and estimated interference is far less than 25% after 30 days so no automatic assumption of PSI can be made per OAR 690-009.

References Used:

Hunt, B. 2003. *Unsteady Stream Depletion when Pumping from a Semiconfined Aquifer*. Journal of Hydrologic Engineering. Vol 8(1), pp 12-19

Oregon Department of Geology and Mineral Industries, *Geologic Map of Oregon*. <http://www.oregongeology.org/geologicmap/>

OWRD Well Log Database – Accessed 7/10/2018.

Wiley, T. J. 2006. *Preliminary Geologic Map of the Sexton Mountain, Murphy, Applegate, and Mount Isabelle 7.5' Quadrangles, Jackson and Josephine Counties, Oregon*. Oregon Dept. of Geology and Mineral Industries. OFR O-06-11

D. WELL CONSTRUCTION, OAR 690-200

D1. Well #: _____ Logid: _____

D2. **THE WELL does not appear to meet current well construction standards based upon:**

- a. review of the well log;
- b. field inspection by _____;
- c. report of CWRE _____;
- d. other: (specify) _____

D3. **THE WELL construction deficiency or other comment is described as follows:** _____

D4. **Route to the Well Construction and Compliance Section for a review of existing well construction.**

Water Availability Tables

Water Availability Analysis Detailed Reports

APPLEGATE R > ROGUE R - AT MOUTH
ROGUE BASIN

Water Availability as of 7/10/2018

Watershed ID #: 249 ([Map](#))

Exceedance Level: ▾

Date: 7/10/2018

Time: 9:33 AM

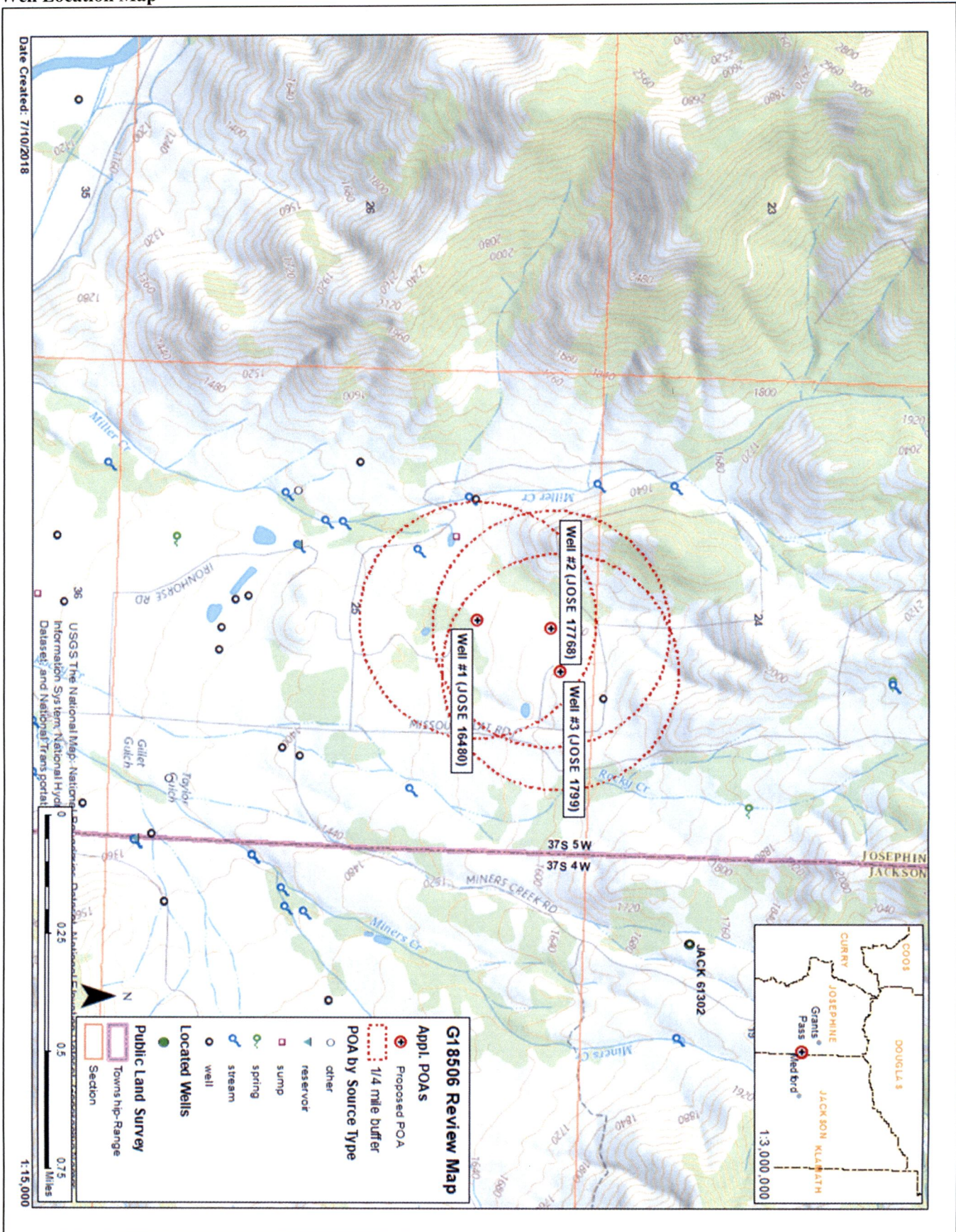
Water Availability Calculation	Consumptive Uses and Storages	Instream Flow Requirements	Reservations
Water Rights	Watershed Characteristics		

Water Availability Calculation

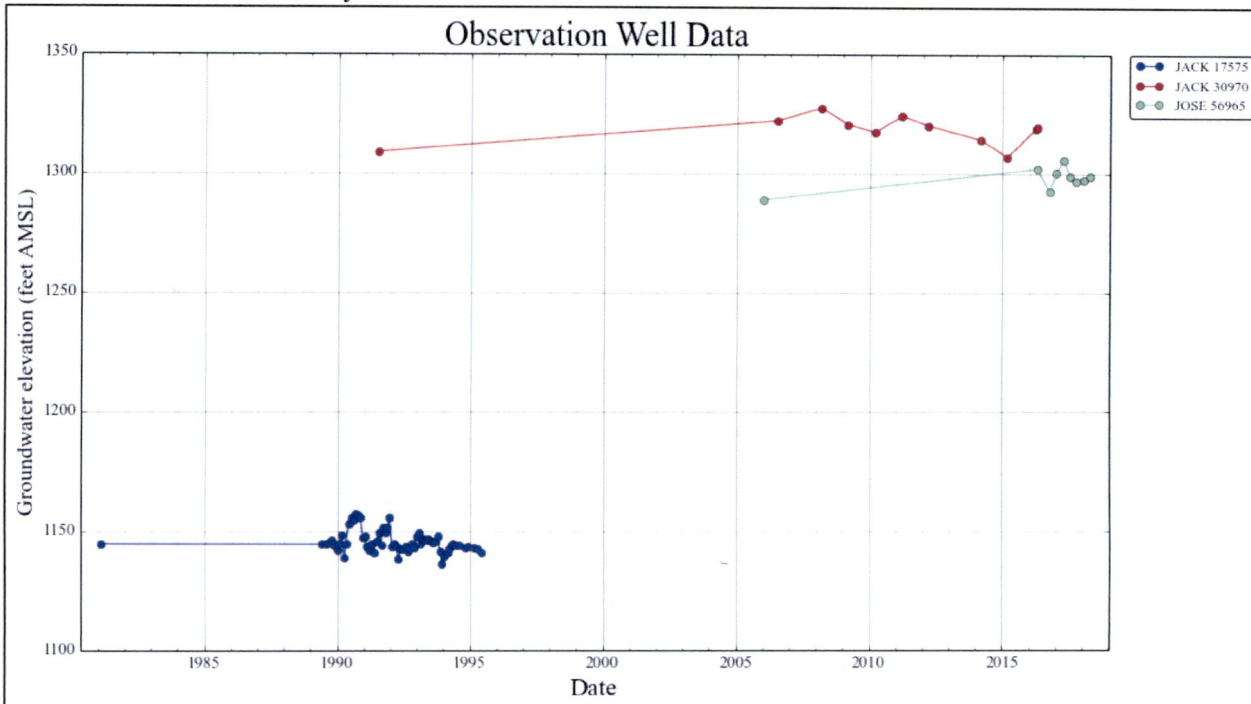
Monthly Streamflow in Cubic Feet per Second
Annual Volume at 50% Exceedance in Acre-Feet

Month	Natural Stream Flow	Consumptive Uses and Storages	Expected Stream Flow	Reserved Stream Flow	Instream Flow Requirement	Net Water Available
JAN	373.00	5.56	367.00	0.00	300.00	67.40
FEB	674.00	439.00	235.00	0.00	300.00	-64.80
MAR	792.00	438.00	354.00	0.00	340.00	14.00
APR	662.00	460.00	202.00	0.00	340.00	-138.00
MAY	591.00	42.10	549.00	0.00	360.00	189.00
JUN	222.00	57.30	165.00	0.00	360.00	-195.00
JUL	91.80	75.90	15.90	0.00	120.00	-104.00
AUG	59.00	63.00	-4.00	0.00	120.00	-124.00
SEP	45.80	42.10	3.67	0.00	120.00	-116.00
OCT	56.00	15.50	40.50	0.00	360.00	-319.00
NOV	146.00	3.54	142.00	0.00	360.00	-218.00
DEC	244.00	4.60	239.00	0.00	300.00	-60.60
ANN	421,000.00	97,700.00	323,000.00	0.00	204,000.00	160,000.00

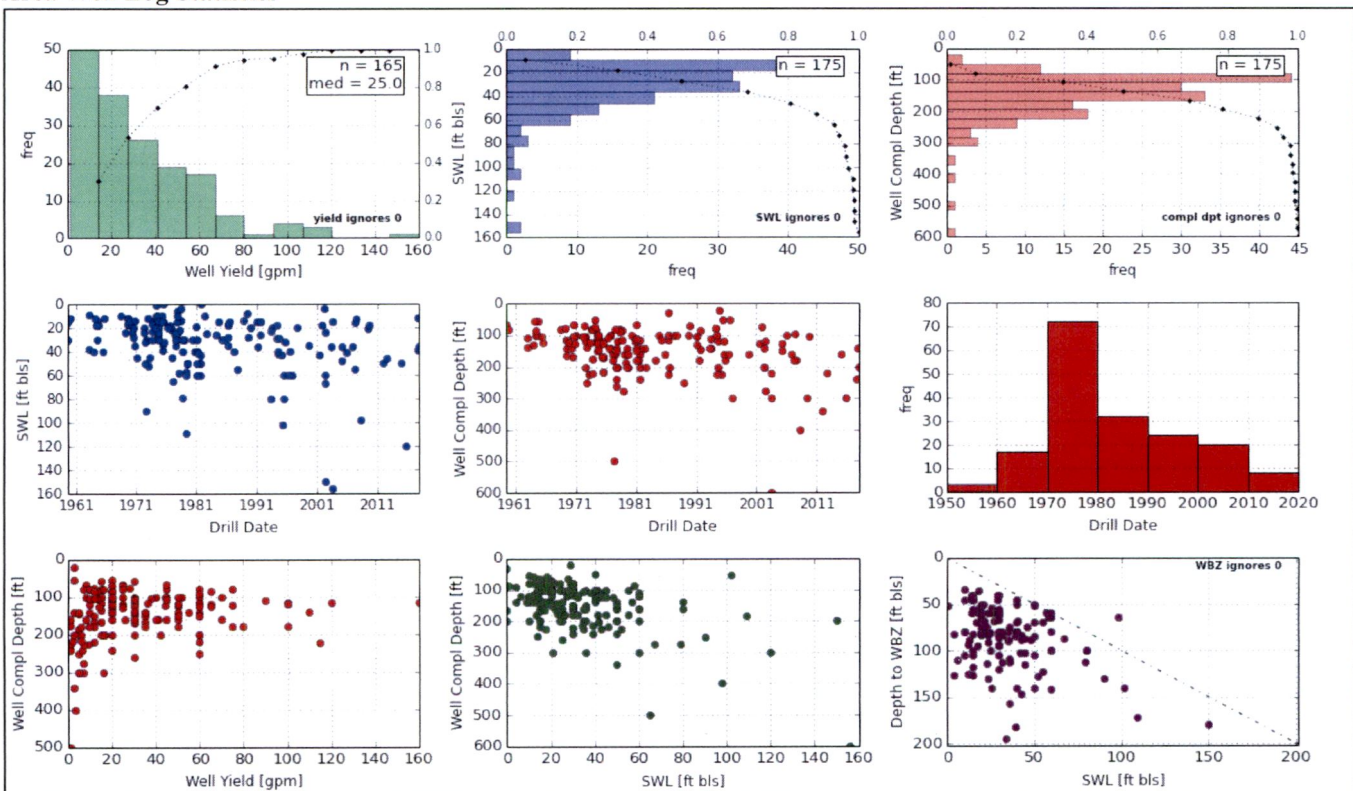
Well Location Map



Water-Level Trends in Nearby Wells



Area Well Log Statistics



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

WATER RESOURCES DEPT
 SALEM, OREGON

JUN 18 1993

JOSE
16480

15238

57S/5W/25a
 (START CARD) # *51217*

(1) OWNER: Well Number 1
 Name Robert Hodge
 Address 369 Kubli Rd.
 City Grants Pass State OR Zip 97527

(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 140 ft.
 Explosives used Yes No Type _____ Amount _____

Diameter	HOLE		Material	SEAL		Amount sacks or pounds
	From	To		From	To	
10"	0	20	Portland	0	20	8 sacks
6"	0	140				

How was seal placed: Method A B C D E
 Other poured Portland

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

(6) CASING/LINER:

Diameter	From	To	Gauge	Material				Threaded
				Steel	Plastic	Welded		
Casing: 6"	+2	88	20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Liner:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Final location of shoe(s) 88'

(7) PERFORATIONS/SCREENS:

Perforations Method _____
 Screens Type _____ Material _____

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
						<input type="checkbox"/>	<input type="checkbox"/>

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

Pump Bailer Air Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
60		139	1 hr.

Temperature of Water 51° Depth Artesian Flow Found _____
 Was a water analysis done? Yes By whom _____
 Did any strata contain water not suitable for intended use? Too little
 Salty Muddy Odor Colored Other _____
 Depth of strata: _____

(9) LOCATION OF WELL by legal description:
 County 90 Latitude _____ Longitude _____
 Township 37S N or S. Range 5W E or W. WM. _____
 Section 25 NW ¼ NE ¼
 Tax Lot 503 Lot _____ Block _____ Subdivision _____
 Street Address of Well (or nearest address) Missouri Flat Rd

(10) STATIC WATER LEVEL:
80 ft. below land surface. Date 6/15/93
 Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:
 Depth at which water was first found 100'

From	To	Estimated Flow Rate	SWL
100'	160'	60	

(12) WELL LOG: Ground elevation _____

Material	From	To	SWL
Granite soft	0	8	
Granite med hard	8	140	80

Date started 6/15/93 Completed 6/15/93

(unbonded) Water Well Constructor Certification:
 I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

Signed _____ WWC Number _____
 Date 6/15/93

(bonded) Water Well Constructor Certification:
 I accept responsibility for the construction, alteration, or abandonment of work performed on this well during the construction dates reported above: All work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

Signed Charles B. Pully WWC Number 1298
 Date 6/17/93

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

14
17768

(START CARD) #

375/5W/25AB
74914

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

(1) OWNER: Well Number 1

Name Ron Nussen
Address 1136 Missouri Flat Rd.
City Grants Pass State Ore Zip 97531

(2) TYPE OF WORK

New Well Deepening Alteration (repair/recondition) Abandonment

(3) DRILL METHOD:

Rotary Air Rotary Mud Cable Auger
 Other

(4) PROPOSED USE:

Domestic Community Industrial Irrigation
 Thermal Injection Livestock Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes No Depth of Completed Well 120' ft.
Explosives used Yes No Type _____ Amount _____

HOLE		SEAL		Sacks or pounds	
Diameter	From To	Material	From To		
10"	0' 30'	Bentonite	0' 30'	14	Sacks
6"	0' 120'				

How was seal placed: Method A B C D E

Other pooured Bentonite

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"	0' 98'	250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Liner:			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s) 98'

(7) PERFORATIONS/SCREENS:

From	To	Slot size	Number	Diameter	Material	Casing	Liner
					Tele/pipe size	<input type="checkbox"/>	<input type="checkbox"/>

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

Yield gal/min	Drawdown	Drill stem at	Time
<u>25</u>		<u>119'</u>	<u>1 hr.</u>

Temperature of water 49.0 Depth Artesian Flow Found _____
Water analysis done? Yes By whom _____
Does water contain water not suitable for intended use? Too little
By Odor Colored Other _____

(9) LOCATION OF WELL by legal description:

County JD. Latitude _____ Longitude _____
Township 375 N or S Range 5W E or W. WM.
Section 25 NW 1/4 NE 1/4
Tax Lot 505 Lot _____ Block _____ Subdivision _____
Street Address of Well (or nearest address) 1136 Missouri Flat Grants Pass

(10) STATIC WATER LEVEL:

60' ft. below land surface. Date 7-17-95
Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:

Depth at which water was first found 100'

From	To	Estimated Flow Rate	SWL
<u>100'</u>	<u>120'</u>	<u>25</u>	<u>60'</u>

(12) WELL LOG:

Ground Elevation _____

Material	From	To	SWL
<u>Brown Clay - Boulders</u>	<u>0'</u>	<u>20'</u>	
<u>Granite & Clay</u>	<u>20'</u>	<u>25'</u>	
<u>Granite med. Hard</u>	<u>25'</u>	<u>100'</u>	
<u>Granite fractured</u>	<u>100'</u>	<u>120'</u>	<u>60'</u>

RECEIVED

JUL 24 1995

WATER RESOURCES DEPT.
SALEM, OREGON

Date started 7-17-95 Completed 7-17-95

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

Signed Ray Pelley WWC Number 1643 Date 7-17-95

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

Signed Charles B Pelley WWC Number 1298 Date 7-17-95

... & FIRST COPY-WATER RESOURCES DEPARTMENT SECOND COPY-CONSTRUCTOR THIRD COPY-CUSTOMER

NOTICE TO WATER WELL CONTRACTOR
 The original and first of this report are to be filed with the
RECEIVED WATER WELL REPORT
 DEC 18 1972 STATE OF OREGON
 STATE ENGINEER, SALEM, OREGON 97310 (Please type or print)
STATE ENGINEER SALEM, OREGON
 within 30 days from the date of well completion. (Do not write above this line)

305
1799
State Well No. 375/5W-25
State Permit No. ab

(1) OWNER:

Name Bob Hodge
 Address 12579 No. Applegate Rd, Grants Pass, Ore

(2) TYPE OF WORK (check):

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

(3) TYPE OF WELL:

Rotary Cable Auger
 Driven Jetted Bored

(4) PROPOSED USE (check):

Domestic Industrial Municipal Irrigation Test Well Other

(5) CASING INSTALLED:

Threated Welded
6" Diam. from 0 ft. to 70 ft. Gage 250
 " Diam. from _____ ft. to _____ ft. Gage _____
 " Diam. from _____ ft. to _____ ft. Gage _____

(6) PERFORATIONS:

Perforated? Yes No.
 Type of perforator used _____
 Size of perforations _____ in. by _____ in.
 _____ perforations from _____ ft. to _____ ft.
 _____ perforations from _____ ft. to _____ ft.
 _____ perforations from _____ ft. to _____ ft.

(7) SCREENS:

Well screen installed? Yes No
 Manufacturer's Name _____ Type _____ Model No. _____
 Diam. _____ Slot size _____ Set from _____ ft. to _____ ft.
 Diam. _____ Slot size _____ Set from _____ ft. to _____ ft.

(8) WELL TESTS:

Drawdown is amount water level is lowered below static level
 Was a pump test made? Yes No If yes, by whom?
 Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
 " _____ " _____ " _____ "
 " _____ " _____ " _____ "
15 gal./min. with 40 ft. drawdown after 1 hrs.
 Artesian flow _____ g.p.m.
 Temperature of water _____ Depth artesian flow encountered _____ ft.

(9) CONSTRUCTION:

Well seal—Material used Cement
 Well sealed from land surface to 23 ft.
 Diameter of well bore to bottom of seal 9 in.
 Diameter of well bore below seal 6 in. ✓
 Number of sacks of cement used in well seal _____ sacks
 Number of sacks of bentonite used in well seal _____ sacks
 Brand name of bentonite _____
 Number of pounds of bentonite per 100 gallons of water _____ lbs./100 gals.
 Was a drive shoe used? Yes No Plugs _____ Size: location _____ ft.
 Did any strata contain unusable water? Yes No
 Type of water? _____ depth of strata _____
 Method of sealing strata off _____
 Was well gravel packed? Yes No Size of gravel: _____
 Gravel placed from _____ ft. to _____ ft.

(10) LOCATION OF WELL:

County Josephine Driller's well number _____
NW ¼ NE ¼ Section 25 T. 37 R. 5W W.M.
 Bearing and distance from section or subdivision corner _____

(11) WATER LEVEL: Completed well,

Depth at which water was first found 125 ft.
 Static level 12 ft. below land surface. Date 12-5-72
 Artesian pressure _____ lbs. per square inch. Date _____

(12) WELL LOG:

Diameter of well below casing 6
 Depth drilled 136 ft. Depth of completed well 136 ft.

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

MATERIAL	From	To	SWL
Brown clay & granite	0	60	
Hard granite	60	130	
Tomblone granite	130	136	

Work started 12-5 1972 Completed 12-5 1972
 Date well drilling machine moved off of well 12-5 1972

Drilling Machine Operator's Certification:

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.
 [Signed] Robert R. Lantz Date 12-11, 1972
 (Drilling Machine Operator)
 Drilling Machine Operator's License No. 695

Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
 Name Geo. McElvanha Well Drilling
 (Person, firm or corporation) (Type or print)
 Address 730 N. E. Elida Dr. Grants Pass, Ore
 [Signed] George McElvanha
 (Water Well Contractor)
 Contractor's License No. 432 Date 12-11, 1972

(USE ADDITIONAL SHEETS IF NECESSARY)

SP*45856-119

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

JUN 18 1993

JOSE
 16489

15238

57S/5W/25a

(START CARD) # 51217

(1) OWNER: Well Number 1
 Name Robert Hodge
 Address 369 Kubi Rd.
 City Grants Pass State ore Zip 97527

(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 140 ft.
 Explosives used Yes No Type _____ Amount _____

HOLE			SEAL			Amount sacks or pounds
Diameter	From	To	Material	From	To	
10"	0	20'	granite	0	20	8 sacks
6"	0	140'				

How was seal placed: Method A B C D E
 Other poored bentonite
 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"	72	88	20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Liner:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s) 88'

(7) PERFORATIONS/SCREENS:

Perforations Method _____
 Screens Type _____ Material _____

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>

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

Pump Bailor Air Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
60		139	1 hr.

Temperature of Water 51° Depth Artesian Flow Found _____
 Was a water analysis done? Yes By whom _____
 Did any strata contain water not suitable for intended use? Too little
 Salty Muddy Odor Colored Other _____
 Depth of strata: _____

(9) LOCATION OF WELL by legal description:
 County 90 Latitude _____ Longitude _____
 Township 37S N or S. Range 5W E or W. WM. _____
 Section 25 NW ¼ NE ¼
 Tax Lot 503 Lot _____ Block _____ Subdivision _____
 Street Address of Well (or nearest address) Missouri Flat Rd

(10) STATIC WATER LEVEL:
80 ft. below land surface. Date 6/15/93
 Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:

Depth at which water was first found 100'

From	To	Estimated Flow Rate	SWL
100'	160'	60	

(12) WELL LOG:
 Ground elevation _____

Material	From	To	SWL
Granite soft	0	8	
Granite med hard	8	140	80

Date started 6/15/93 Completed 6/15/93
 (unbonded) Water Well Constructor Certification:
 I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

Signed _____ WWC Number _____
 Date 6/15/93

(bonded) Water Well Constructor Certification:
 I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.
 Signed Charles B Pulley WWC Number 1298
 Date 6/17/93

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

14
-1058
17768

375/5W/25AB
-74914
(START CARD) #

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

(1) OWNER: Well Number 1
Name Ron Nussen
Address 1136 Missouri Flat Rd.
City Grants Pass State Ore Zip 97501

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

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

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

(5) BORE HOLE CONSTRUCTION:
Special Construction approval Yes No Depth of Completed Well 120' ft.
Explosives used Yes No Type _____ Amount _____

HOLE			SEAL			
Diameter	From	To	Material	From	To	Sacks or pounds
10"	0	30'	Bentonite	0	30'	14 Sacks
6"	0	120'				

How was seal placed: Method A B C D E
 Other pooured Bentonite
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
6"	0	98'	250	<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: _____

Final location of shoe(s) 98'

(7) PERFORATIONS/SCREENS:

From	To	Slot size	Number	Diameter	Material	Tele/pipe size	Casing	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"/>

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

Yield gal/min	Drawdown	Drill stem at	Time
<u>25</u>		<u>119'</u>	<u>1 hr.</u>

Pump Bailer Air Flowing Artesian

Temperature of water 49.0 Depth Artesian Flow Found _____

Water analysis done? Yes By whom _____
 contain water not suitable for intended use? Too little
 Odor Colored Other _____

(9) LOCATION OF WELL by legal description:
County JD. Latitude _____ Longitude _____
Township 375 N or S Range 5W E or W. WM.
Section 25 NW 1/4 NE 1/4
Tax Lot 505 Lot _____ Block _____ Subdivision _____
Street Address of Well (or nearest address) 1136 Missouri Flat Grants Pass

(10) STATIC WATER LEVEL:
60 ft. below land surface. Date 7-17-95
Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:
Depth at which water was first found 100'

From	To	Estimated Flow Rate	SWL
<u>100'</u>	<u>120'</u>	<u>25</u>	<u>60'</u>

(12) WELL LOG:
Ground Elevation _____

Material	From	To	SWL
<u>Brown Clay - Boulders</u>	<u>0</u>	<u>20'</u>	
<u>Granite & Clay</u>	<u>20'</u>	<u>25'</u>	
<u>Granite med. Hard</u>	<u>25'</u>	<u>100'</u>	
<u>Granite fractured</u>	<u>100'</u>	<u>120'</u>	<u>60'</u>

RECEIVED

JUL 24 1995

WATER RESOURCES DEPT.
SALEM, OREGON

Date started 7-17-95 Completed 7-17-95
(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

Signed Ray Pelley WWC Number 1648 Date 7-17-95

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

Signed Charles B Pelley WWC Number 1298 Date 7-17-95