

IN-OFFICE BENEFICIAL USE EXAM REPORT

Permit No. 63-11764Prepared by Angie GrimmDate 3/13/2014

Same as permit Different than permit

Owner Name	☒	☐ _____
Owner Address	☒	☐ _____
Source	☒	☐ _____
Tributary	☒	☐ _____
POD	☒	☐ <u>QQ same, but gov't lot updated</u>
POU	☒	☐ <u>QQ same, but gov't lots updated</u>
Beneficial Use(s)	☒	☐ <u>See attached memo for rate and vol recommend info</u>

Exam Fee Required for Permitted Rate \$50.00Exam Fee Paid \$50.00

Overlaps ☐ No ☒ Yes, summarize 63-11887 Dom for office (w/ irr vol for trees) from same well. Additional water developed under 63-11764. No combo rate limit, but 63-11887 vol 0.1 afa (vol for office only) + 63-11764 19.0 afa = 19.1 afa combo vol limit . F06 63-11887 & 63-11764 same POD.

Amendment ☒ No ☐ Yes, summarize _____

Technical Confirmation Tools

ArcMap (Bing)	☒	GPS	☒
Taxlot	☐	Photos	☒
Well Log	☒	Diagrams	☐
Other	☐ explain: _____		

Conditions/Comments Irr of trees same since 1995 exam 63-11887. Trees cover slightly more than 1 ac under drip system. Recommend 0.03 cfs for 1 ac Irr use this permit, but total vol for irr not more than 4.5 afa with irr vol (0.9 afa) under 63-11887 Dom use.

Exam Date Entered ☒Draft License Created ☒Shapes Updated ☒

MEMORANDUM

TO: Permit 63-11764 File

FROM: Angie Grimm

DATE: March 13, 2014

RE: Beneficial Use Exam Narrative

On August 27, 2012, I conducted a beneficial use field exam for permit 63-11764. This permit authorizes industrial and irrigation use for a gravel operation. The irrigation use occurring on the property is drip irrigation of trees providing a sight-line barrier required by the county. The well used for this permit is also the point of diversion (POD) for right 63-11887. Originally, the owner filed a single permit application for domestic, irrigation, and industrial uses for this gravel operation. At the time of filing (1992) a moratorium prohibited approval of new consumptive uses. Therefore, the permit application was split into two individual permits; 63-11764 for irrigation and industrial uses and 63-11887 for domestic use. Application 63-11887 was approved and subsequently licensed in 1996. Application 63-11764 was held until the moratorium was lifted then approved in 2008.

Summary of Exam and Beneficial Use Analysis

Diversion Works:

- POD well (log attached) N 43° 32.5752' W 116° 36.4776'.
- 7.5 HP submersible motor with Berkley pump to 2" discharge. Average pressure of system 85 psi (3 pressure tanks).
- Tanker trucks filled with water from hose connected to 2 in discharge line on east side of well/pump house. Line to office and irrigation lines out west side of pump house.

System Capacity/Rate Recommendation:

- **Rate estimate based on how fast trucks are filled:** 4000 gal/45 min = 88.9 gpm = **0.20 cfs**
- **Theoretical HP Equation rate estimate:** $Q = (8.8 \times 0.7 \times \text{HP}) / [Z + (2.31 \times \text{PSI})] = (8.8 \times 0.7 \times 7.5) / [72 + (2.31 \times 85)] = \mathbf{0.17 \text{ cfs}}$ est. capacity of pumping system (Z est. 10 ft below static water level for small (< 10 HP) system)
- **Permitted rate = 0.05 cfs**
- **Recommend permitted rate = 0.05 cfs** (0.03 cfs Irrigation and 0.02 cfs Industrial)
- Right 63-11887 authorizes 0.02 cfs from same well, for total of 0.07 cfs, which is below estimated capacity of system. No combined rate limit required.

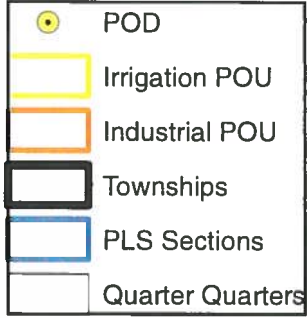
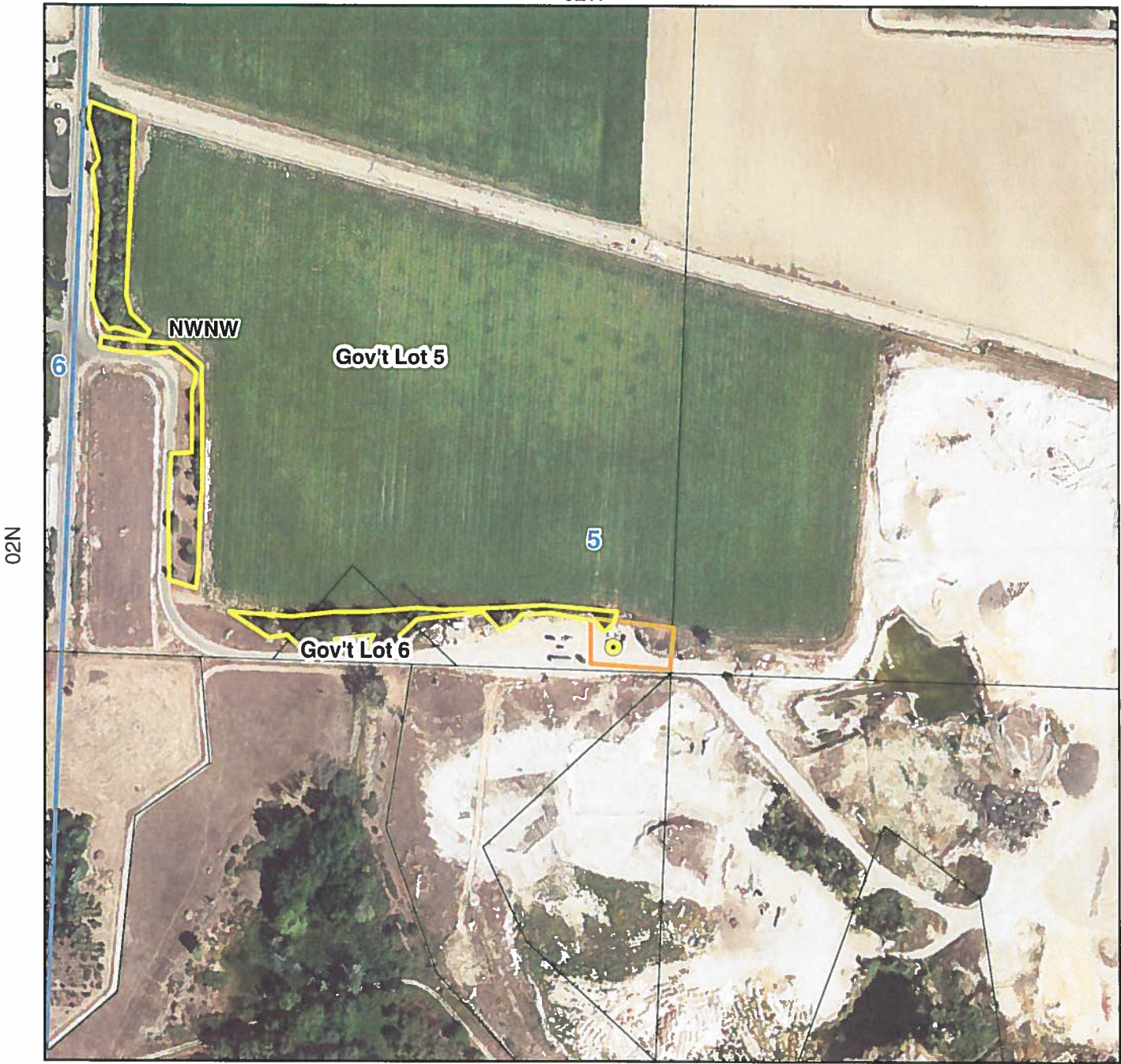
Volume Recommendations:

- **Irrigation Use:**
 - $V_{IR} = 1.0 \text{ ac} \times 4.5 \text{ afa} = 4.5 \text{ afa}$
 - $V_{DR} = 0.03 \text{ cfs} \times 260 \text{ days/yr} \times 1.9835 = 15.5 \text{ afa}$
 - $V_{IR} < V_{DR} = \text{Recommend } \mathbf{4.5 \text{ afa}}$
- **Industrial Use:**
 - $V_R = 4,000 \text{ gal truck} \times 5 \text{ times/day} \times 365 \text{ days/yr} \times 1 \text{ af}/325,850 \text{ gal} = 22.4 \text{ afa}$
 - $V_D = 0.02 \text{ cfs} \times 365 \text{ days/yr} \times 1.9835 = 14.5 \text{ afa}$
 - $V_D < V_R = \text{Recommend } \mathbf{14.5 \text{ afa}}$
- 63-11887 + 63-11764 not exceed combined volume of 19.1 afa (63-11887 vol part irrigation).

State of Idaho
Department of Water Resources

63-11764 Beneficial Use Exam Report Map

02W



63-11764 Beneficial Use Field Report Photos

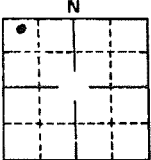


63-11764 Exam 8/27/2012: POD well inside pump house.



63-11764 Exam 8/27/2012: Hose east side of pump house used to fill tanker trucks to take water to gravel operation.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
RECEIVED
WELL DRILLER'S REPORTUSE TYPEWRITER OR
BALLPOINT PEN
RECEIVEDState law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.
Department of Water Resources
OCT 21 1992

1. WELL OWNER Name <u>BRYAN C. RAMBO CRUSHING CO. INC.</u> Address <u>8301 CHERRY LN. NAMPA, IDA.</u> Drilling Permit No. <u>63-W-92-578 548-000</u> Water Right Permit No. <u>63-11887</u>		7. WATER LEVEL Static water level <u>62</u> feet below land surface. Flowing? ☐ Yes ☒ No G.P.M. flow _____ Artesian closed-in pressure _____ p.s.i. Controlled by: ☐ Valve ☐ Cap ☐ Plug Temperature <u>57</u> °F. Quality <u>GOOD</u> Describe artesian or temperature zones below.																																																																																																																																									
2. NATURE OF WORK ☒ New well ☐ Deepened ☐ Replacement ☐ Well diameter increase ☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)		8. WELL TEST DATA ☒ Pump ☐ Bailor ☐ Air ☐ Other _____ <table border="1"><thead><tr><th>Discharge G.P.M.</th><th>Pumping Level</th><th>Hours Pumped</th></tr></thead><tbody><tr><td><u>45</u></td><td><u>68</u></td><td><u>2</u></td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></tbody></table>		Discharge G.P.M.	Pumping Level	Hours Pumped	<u>45</u>	<u>68</u>	<u>2</u>																																																																																																																																		
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3. PROPOSED USE ☒ Domestic ☐ Irrigation ☐ Test ☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection ☐ Other _____ (specify type)		9. LITHOLOGIC LOG <u>082020</u> <table border="1"><thead><tr><th rowspan="2">Bore Diam.</th><th colspan="2">Depth</th><th rowspan="2">Material</th><th colspan="2">Water</th></tr><tr><th>From</th><th>To</th><th>Yes</th><th>No</th></tr></thead><tbody><tr><td>8</td><td>0</td><td>4</td><td>TOP SOIL</td><td> </td><td> </td></tr><tr><td>4</td><td>4</td><td>9</td><td>BRN CLAY</td><td> </td><td> </td></tr><tr><td>9</td><td>9</td><td>20</td><td>GRAVEL</td><td> </td><td> </td></tr><tr><td>6</td><td>20</td><td>55</td><td>SAND & GRAVEL</td><td> </td><td> </td></tr><tr><td>55</td><td>55</td><td>72</td><td>BRN CLAY</td><td> </td><td> </td></tr><tr><td>72</td><td>72</td><td>76</td><td>FINE SAND</td><td> </td><td> </td></tr><tr><td>76</td><td>76</td><td>84</td><td>BRN CLAY</td><td> </td><td> </td></tr><tr><td>84</td><td>84</td><td>87</td><td>FINE SAND</td><td> </td><td> </td></tr><tr><td>87</td><td>87</td><td>98</td><td>BRN CLAY</td><td> </td><td> </td></tr><tr><td>98</td><td>98</td><td>115</td><td>FINE BRN SAND</td><td> </td><td> </td></tr><tr><td>115</td><td>115</td><td>144</td><td>BRN CLAY</td><td> </td><td> </td></tr><tr><td>144</td><td>144</td><td>155</td><td>BLUE CLAY</td><td> </td><td> </td></tr><tr><td>155</td><td>155</td><td>170</td><td>FINE BRN SAND</td><td> </td><td> </td></tr><tr><td>170</td><td>170</td><td>198</td><td>BRN CLAY</td><td> </td><td> </td></tr><tr><td>198</td><td>198</td><td>204</td><td>FINE SAND</td><td> </td><td> </td></tr><tr><td>204</td><td>204</td><td>243</td><td>BRN CLAY / W FINE SAND ST.</td><td> </td><td> </td></tr><tr><td>243</td><td>243</td><td>248</td><td>FINE SAND</td><td> </td><td> </td></tr><tr><td>248</td><td>248</td><td>262</td><td>BRN CLAY</td><td> </td><td> </td></tr><tr><td>262</td><td>262</td><td>275</td><td>FINE SAND</td><td> </td><td> </td></tr><tr><td>275</td><td>275</td><td>308</td><td>BRN CLAY W SAND STRIPS</td><td> </td><td> </td></tr><tr><td>308</td><td>308</td><td>321</td><td>CLEAN WHITE MED. SAND</td><td> </td><td> </td></tr></tbody></table>		Bore Diam.	Depth		Material	Water		From	To	Yes	No	8	0	4	TOP SOIL			4	4	9	BRN CLAY			9	9	20	GRAVEL			6	20	55	SAND & GRAVEL			55	55	72	BRN CLAY			72	72	76	FINE SAND			76	76	84	BRN CLAY			84	84	87	FINE SAND			87	87	98	BRN CLAY			98	98	115	FINE BRN SAND			115	115	144	BRN CLAY			144	144	155	BLUE CLAY			155	155	170	FINE BRN SAND			170	170	198	BRN CLAY			198	198	204	FINE SAND			204	204	243	BRN CLAY / W FINE SAND ST.			243	243	248	FINE SAND			248	248	262	BRN CLAY			262	262	275	FINE SAND			275	275	308	BRN CLAY W SAND STRIPS			308	308	321	CLEAN WHITE MED. SAND		
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4. METHOD DRILLED ☒ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary ☒ Cable ☐ Dug ☐ Other _____		10. Work started <u>7-13-92</u> finished <u>8-25-92</u>																																																																																																																																									
5. WELL CONSTRUCTION Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____ <table border="1"><thead><tr><th>Thickness</th><th>Diameter</th><th>From</th><th>To</th></tr></thead><tbody><tr><td><u>2.50</u> inches</td><td><u>6</u> inches</td><td><u>1</u> feet</td><td><u>306</u> feet</td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></tbody></table> Was casing drive shoe used? ☒ Yes ☐ No Was a packer or seal used? ☒ Yes ☐ No Perforated? ☐ Yes ☒ No How perforated? ☐ Factory ☐ Knife ☐ Torch ☐ Gun Size of perforation _____ inches by _____ inches <table border="1"><thead><tr><th>Number</th><th>From</th><th>To</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></tbody></table> Well screen installed? ☒ Yes ☐ No Manufacturer's name <u>COOK</u> Type <u>STAINLESS STEEL</u> Model No. <u>304</u> Diameter <u>5"</u> Slot size <u>20</u> Set from <u>308</u> feet to <u>308</u> feet Diameter _____ Slot size _____ Set from _____ feet to _____ feet Gravel packed? ☐ Yes ☒ No ☐ Size of gravel _____ Placed from _____ feet to _____ feet Surface seal depth <u>20</u> Material used in seal: ☐ Cement grout ☒ Bentonite ☐ Puddling clay ☐ _____ Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☐ Overbore to seal depth Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld ☐ Cemented between strata Describe access port _____		Thickness	Diameter	From	To	<u>2.50</u> inches	<u>6</u> inches	<u>1</u> feet	<u>306</u> feet													Number	From	To										11. DRILLERS CERTIFICATION I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Firm Name <u>COARSE WELL DRILLING</u> Firm No. <u>409</u> Address <u>EAGLE, IDA.</u> Date <u>8-27-92</u> Signed by (Firm Official) <u>[Signature]</u> and (Operator) _____																																																																																																									
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6. LOCATION OF WELL Sketch map location must agree with written location.  Subdivision Name _____ Lot No. _____ Block No. _____ County <u>CANYON</u> NW ¼ NW ¼ Sec. <u>5</u> T. <u>2</u> N ¼ R. <u>2</u> W ¼																																																																																																																																											



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

August 17, 2012

Rambo Crushing Co.
Attn: Tim Rambo
2700 S. Middleton Rd.
Nampa, ID 83686

RE: Scheduling Field Exam for Water Right Permit No. 63-11764

Dear Mr. Rambo:

We are planning to **conduct water right examinations** in the vicinity of the above-referenced permit **during the weeks of August 20 and August 27, 2012**. An examination is needed to verify your water use in order to issue a water right license.

Please be advised that you will need to operate your system under normal conditions during the examination. The permit authorizes diversion of ground water for industrial and irrigation use at your gravel operation.

In order to conduct your exam as efficiently as possible, we ask that you call this office to schedule a day and time convenient for you. **Please call me at 208-334-2190 by August 24, 2012**. If there is a problem with scheduling or conducting the examination at this time, please call and other arrangements can be made. I appreciate your attention in this matter and I look forward to hearing from you.

Sincerely,

Angela M. Grimm, P.G.
Water Resource Agent, Sr.