



April 7, 2019

Nick Miller, P.E.  
Western Region Manager  
Idaho Department of Water Resources  
2735 Airport Way  
Boise, ID 83705

RECEIVED

APR 08 2019

WATER RESOURCES  
WESTERN REGION

***Subject: Rule 40 Additional Information for Application for Permit 63-34615***

Dear Nick:

On behalf of Micron Technology, Inc. (Applicant or Micron), SPF Water Engineering (SPF) has prepared this letter to provide additional information related to application for permit 63-34615. The referenced application for permit seeks to divert a total of 10 cfs of groundwater for industrial use at Micron's main campus in southeast Boise, Idaho. The following provides background and additional information required under IDAPA 37.03.08 Rule 40.05.

#### **BACKGROUND**

Application for permit 63-34615 seeks authorization to divert up to 10 cfs of groundwater for industrial purposes. The diversion points include four existing wells (Wells 4, 5, 6, and 7) and two proposed wells (Wells 8 and 9) that are located on Micron's campus in Sections 6, 7, and 8 within Township 2 North, Range 3 East. Industrial water use will occur at Micron's production facilities within the same legal land description. The diversion points are located in the Southeast Boise Groundwater Management Area, but the water proposed for diversion will be fully mitigated because it will be recovered Boise River water authorized for ground water recharge. Water rights currently used for groundwater recharge include Nampa & Meridian Irrigation District (63-199B and 63-200B), Micron license 63-12420, and Bureau of Reclamation storage water from Anderson Ranch Reservoir. Micron has also submitted an application (63-34614) to divert additional water from the Boise River for ground water recharge through an existing injection well. Application 63-34615 is part of an effort to keep up with the Applicant's increasing water demands and plans for future development.

The application is intended to supplement license 63-31183 which authorizes diversion of 9.13 cfs of recharge-mitigated groundwater, but is limited to an annual diversion volume of 4506.7 acre feet in combination with Micron's decreed groundwater rights which also provide an annual diversion volume of 4506.7 acre feet. If approved, application for permit 63-34615 will allow Micron to divert in excess of 9.13 cfs and 4506.7 acre feet annually provided that diversions are adequately mitigated.

**RULE 40.05 INFORMATION**

The following paragraphs provide the additional information required from the applicant under Water Appropriation Rule 40.05.

**IDAPA 37.03.08, 40.05.c: Effect on Existing Water Rights**

- I. *For applications appropriating springs or surface streams with five (5) or fewer existing users, either the identification number, or the name and address of the user, and the location of the point of diversion and nature of use for each existing water right shall be submitted.*

Not applicable. Application seeks authorization to divert groundwater.

- II. *For applications appropriating groundwater, a plat shall be submitted locating the proposed well relative to all existing wells and springs and permitted wells within a one-half mile radius of the proposed well.*

The Idaho Department of Water Resources (IDWR) well construction GIS database shows a total of 13 other wells within a half-mile radius of the proposed diversion points (Micron Wells 4 through 9). Of those nearby wells, Micron is listed as the well owner on six of the well records, leaving seven wells owned by outside parties.

- Of the six Micron well records, Map Well Nos. 5, 7, and 8 are used for monitoring, Map Well No 18 has been abandoned (Map Well No. 19 is the abandonment record), and Map Well No. 17 is believed to be a well abandonment record.
  - All seven of the non-Micron wells are for domestic use. One of these wells (Beech) appears to be actually located six miles to the west of the described location, but is included for completeness. Of the remaining six wells, Map Well Nos. 4, 14, and 15 are believed to have been abandoned. Attachment A provides a map of the nearby wells and their respective well logs.
- III. *Information shall be submitted concerning any design, construction, or operation techniques which will be employed to eliminate or reduce the impact on other water rights.*

The points of diversion for the project consist of 4 existing wells and 2 proposed wells. Water extracted from the aquifer under this permit will be mitigated by recharge of the aquifer using natural flow Boise River water from the Nampa & Meridian Irrigation District (63-199B and 63-200B) and Micron license 63-12420, and Boise River storage water delivered under a Bureau of Reclamation storage contract. Micron also has a pending application (63-34614) for an additional 12 cfs of Boise River flood water for recharge. Water injected into the aquifer under these water rights is currently recovered under

Micron license 63-31183. It is anticipated that conditions similar to those for 63-31183 will be placed on 63-34615. Those conditions include:

1. *The water right holder must comply with the measuring and reporting requirements of the Southeast Boise Groundwater Management Area (SEBGWMA) and any management plan adopted by the director.*
2. *Water diverted from the points of diversion for this right shall be considered water authorized for withdrawal under other existing water rights to their full extent, as deliverable, unless otherwise requested by the water right holder.*
3. *In the event of water right curtailments in the SEBGWMA, out-of-priority diversions may be allowed under this right to the extent that (1) the diversions under this right are mitigated by groundwater recharge activities, and (2) diversions under this right do not injure senior water rights through direct well interference.*
4. *When mitigation is required, the entire volume of water injected by the right holder into the SEBGWMA aquifer for groundwater recharge, up to the total amounts authorized by this right and right 63-31183 can be diverted from the aquifer under this right during the calendar year it is injected. Water not diverted during the year it is injected can be carried over for future withdrawal and beneficial use associated with this right. The volume authorized for withdrawal will be reduced by 10% each calendar year following the first calendar year the water is injected.*

The conditions are designed to limit groundwater withdrawals under 63-34615 and 63-31183 to the volume of water injected into the aquifer for recharge purposes, which prevents injury to senior water rights in the SEBGWMA.

**IDAPA 37.03.08, 40.05.d: Sufficiency of Water Supply**

- I. *Information shall be submitted on the water requirements of the proposed project, including, but not limited to, the required diversion rate during the peak use period and the average use period, the volume to be diverted per year, the period of year that water is required, and the volume of water that will be consumptively used per year.*

The application seeks a maximum diversion rate of 10 cfs for industrial uses. The additional industrial supply is intended to help meet the Applicant's growing water demands. The applicant has an aggressive water recycling program that has historically kept diversions within the 4,506.7 acre-foot annual diversion volume limit under the applicant's existing groundwater rights. However, there is potential for this volume to be exceeded as demands increase or if manufacturing changes reduce the volume of water that can be recycled.

Water is utilized year-round without significant peak diversion periods.

Less than 20% of the diverted groundwater is consumed. The remainder of the water is either is discharged to the City of Boise municipal wastewater system.

Each of the proposed points of diversion for 63-34615 are wells located within the SEBGWMA boundary. The most recent annual report available for the groundwater management area shows that Micron diverted 2,868 acre-feet and injected 506 acre-feet in 2017 for a net groundwater withdrawal of 2,363 acre-feet. A copy of this report and the accompanying data are provided in Attachment B. The additional diversion requested under 63-34615 will not increase the net groundwater withdrawal beyond the currently authorized 4506.7 acre-foot limit because 63-34615 will be fully mitigated by Boise River water recharged into the aquifer. The volume to be diverted each year under 63-34615 will be dependent on the amount of recharge accomplished under the rights previously mentioned and will vary based on water availability in the Boise River system and water demands at Micron.

- II. *Information shall be submitted on the quantity of water available from the source applied for, including, but not limited to, information concerning flow rates for surface water sources available during periods of peak and average project water demand, information concerning the properties of the aquifers that water is to be taken from for groundwater sources, and information on other sources of supply that may be used to supplement the applied for water source.*

The target aquifer is part of the SEBGWMA and is closely monitored to ensure that excessive drawdown does not occur. The 2017 annual report for the groundwater management area stated that aquifer water levels increased significantly around Micron from 2003 to 2015, but have experienced a slight decrease in recent years (Attachment B). In any case, the quantity of water available from the source aquifer under the proposed water right is dependent on recharge activities by Micron using Boise River water under separate water rights. It is anticipated that conditions similar to those imposed on Micron license 63-31183 will be applied to this application as well, as listed earlier in this report. Micron also holds several other water rights for industrial use which it can use to meet water demands, but these rights may be insufficient in the future as water demands continue to increase at the manufacturing facilities.

**IDAPA 37.03.08, 40.05.e: Good Faith, Delay, or Speculative Purposes**

- I. *The applicant shall submit copies of deeds, leases, easements or applications for rights-of-way from federal or state agencies documenting a possessory interest in the lands necessary for all project facilities and the place of use or if such interest can be obtained by eminent domain proceedings the applicant must show that appropriate actions are being taken to obtain the interest. Applicants for hydropower uses shall also submit*

*information required to demonstrate compliance with Sections 42-205 and 42-206, Idaho Code.*

The Applicant will use 4 existing and 2 proposed well pumping facilities to pull water from the aquifer and transport it to the place of use within the southeast Boise Micron campus. All of the points of diversion and places of use listed on the application are located on land owned by the Applicant. Attachment C provides a map of the points of diversions, place of use, and parcels owned by the Applicant.

- II. *The applicant shall submit copies of applications for other needed permits, licenses and approvals, and must keep the department apprised of the status of the applications and any subsequent approvals or denials.*

The applicant holds injection well permit 63W156001 for the applicant's aquifer recharge injection well. The permit is available in IDWR files.

The applicant has existing water rights for aquifer recharge including Nampa & Meridian Irrigation District (63-199B and 63-200B), Micron license 63-12420, and Bureau of Reclamation storage water from Anderson Ranch Reservoir.

No other approvals are necessary at this time. The Applicant will submit drilling permits for the proposed Well 8 and Well 9 points of diversion prior to construction.

**IDAPA 37.03.08, 40.05.f: Financial Resources**

- I. *The applicant shall submit a current financial statement certified to show the accuracy of the information contained therein, or a financial commitment letter along with the financial statement of the lender or other evidence to show that it is reasonably probable that financing will be available to appropriate the water and apply it to the beneficial use proposed.*

Micron Technology Inc. is a multi-billion dollar, publicly-traded company with significant financial resources available. The infrastructure for diverting water from Wells 4, 5, 6, and 7 is already in place and so will not result in any additional financial burden on the Applicant. Construction of Well 8 and Well 9 is planned for the future as Micron expands its production facilities.

Financial information for Micron can be accessed at the following link:  
<http://investors.micron.com/> .

- II. *The applicant shall submit plans and specifications along with estimated construction costs for the project works. The plans shall be definite enough to allow for determination of project impacts and implications.*

The project works for Wells 4, 5, 6, and 7 proposed for use under this water application have been previously constructed and are currently in use. No upgrades to the infrastructure for these wells are planned.

Two unconstructed wells are also proposed as points of diversion under this application, each located on land owned by the Applicant. The anticipated well dimensions are a diameter of 16 inches with a completed depth of 1,200 feet. Projected cost is roughly \$1 million per well.

**IDAPA 37.03.08, 40.05.g: Conflict with the Local Public Interest**

*The applicant shall seek comment and shall submit all letters of comment on the effects of the construction and operation of the proposed project from the governing body of the city and/or county and tribal reservation within which the point of diversion and place of use are located, the Idaho Department of Fish and Game, the Idaho Department of Environmental Quality, and any irrigation district or canal company within which the proposed project is located and from other entities as determined by the Director.*

Attachment D includes requests for comment letters submitted to the Idaho Department of Fish and Game, Idaho Department of Environmental Quality, Nampa & Meridian Irrigation District, and City of Boise. Requests for comment were previously sent out by the Department of Water Resources to the Southeast Boise Ground Water Management Advisory Committee and Boise Project Board of Control. Copies are included in Attachment D.

**IDAPA 37.03.08, 40.05.h: Public Interest Criteria of Section 42-203C(2)**

- I. *A project design and estimate of cost of development shall be submitted. For applications appropriating more than twenty-five (25) cfs, or ten thousand (10,000) AF of storage, or generating more than five (5) megawatts, the information shall be prepared and submitted by a qualified engineer licensed under the provisions of Chapter 12, Title 54, Idaho Code, unless waived by the Director. The design shall be definite enough to reflect the project's impacts and implications as required in subsequent rules.*

The majority of the project works for this application already exist, but two new wells are proposed as future points of diversion. The new wells have not yet been constructed, but preliminary cost projections estimate a cost of roughly \$1 million per well for a total project cost of \$2 million. Cost estimates are based on construction of a 16-inch diameter, 1,200-foot deep well at each of the future diversion points and any required mechanical or conveyance piping.

- II. *If the project proposes development for irrigation purposes, information shall be submitted on crop rotation, including acreages, for lands when newly developed.*

Not applicable. New irrigation development is not proposed.

- III. *Information shall be submitted concerning the number and kinds of jobs that will be created or eliminated as a direct result of project development including both the construction and operating phases of the project. If jobs are seasonal, the estimated number of months per year of employment shall be submitted.*

No job elimination will be caused by this project. Increasing Micron's water supply prepares the company for future growth and potential work force expansion.

- IV. *For applications or permits being reprocessed for more than twenty-five (25) cfs, or more than ten thousand (10,000) AF of storage, or more than five (5) megawatts, information shall be submitted concerning the changes to community services that will be required during the construction and operation phases of the project including, but not limited to, changes to schools, roads, housing, public utilities and public health and safety facilities, if any.*

Not applicable. The application is for less than twenty-five (25) cfs, less than ten thousand (10,000) AF of storage, and less than five (5) megawatts

- V. *Information shall be submitted concerning the source of energy for diverting and using water for the project, the estimated instantaneous demand and total amount of energy that will be used, the efficiency of use, and energy conservation methods.*

The project will utilize utility grid power at all the proposed diversion points. Power supply has been previously installed and is operational at Wells 4, 5, 6, and 7. Power will be extended to serve Well 8 and Well 9 upon completion.

Assuming a full diversion of 10 cfs, approximately 1,000 pump horsepower is required. Each of the existing pumps and the planned pumps for Well 8 and Well 9 are high-efficiency vertical turbines that will be well-maintained. Using the same potential diversion volume of 400 af as anticipated for recharge under 63-34614, total energy use will be roughly 298,000 kW-hrs. Actual diversion volume will depend on annual water demand.

- VI. *Information shall be submitted concerning the location, amount, and quality of return flow water, and any water conservation features of the proposed project.*

Water for industrial purposes will be used at the Applicant's plant for processes related to semiconductor and related product manufacturing, and used water will then be returned to the Boise River through the City of Boise municipal wastewater treatment plant. Micron also recycles a high percentage of the fresh water used in industrial processes which

conserves water by reducing the amount of fresh groundwater and surface water required for plant operations.

VII. *If the project proposes irrigation as a use, information shall be submitted concerning the kinship, if any, of the operator of the land to be irrigated by the project to the applicant, the location and acreage of other irrigated lands owned, leased, or rented by the applicant, the names, addresses and number of shares held by each shareholder if the applicant is a corporation, evidence of tax-exempt status if a corporation is so claiming, a soil survey prepared in accordance with the U.S. Soil Conservation Service irrigatable land classification system, and a schedule for bringing into production the project lands.*

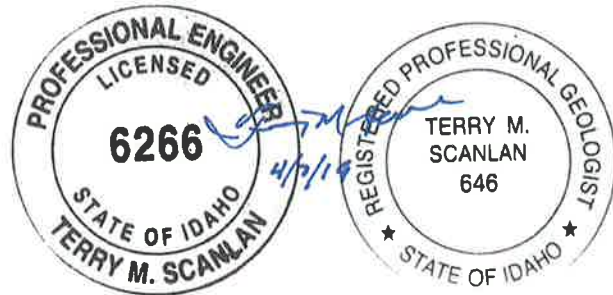
Not applicable. Irrigation is not proposed as a water use.

Please contact me with any questions.

Sincerely,



Terry M. Scanlan, P.E., P.G.  
Principal Engineer/Hydrogeologist



Cc: Ann Dickey, Micron Technology Inc.

Attachments

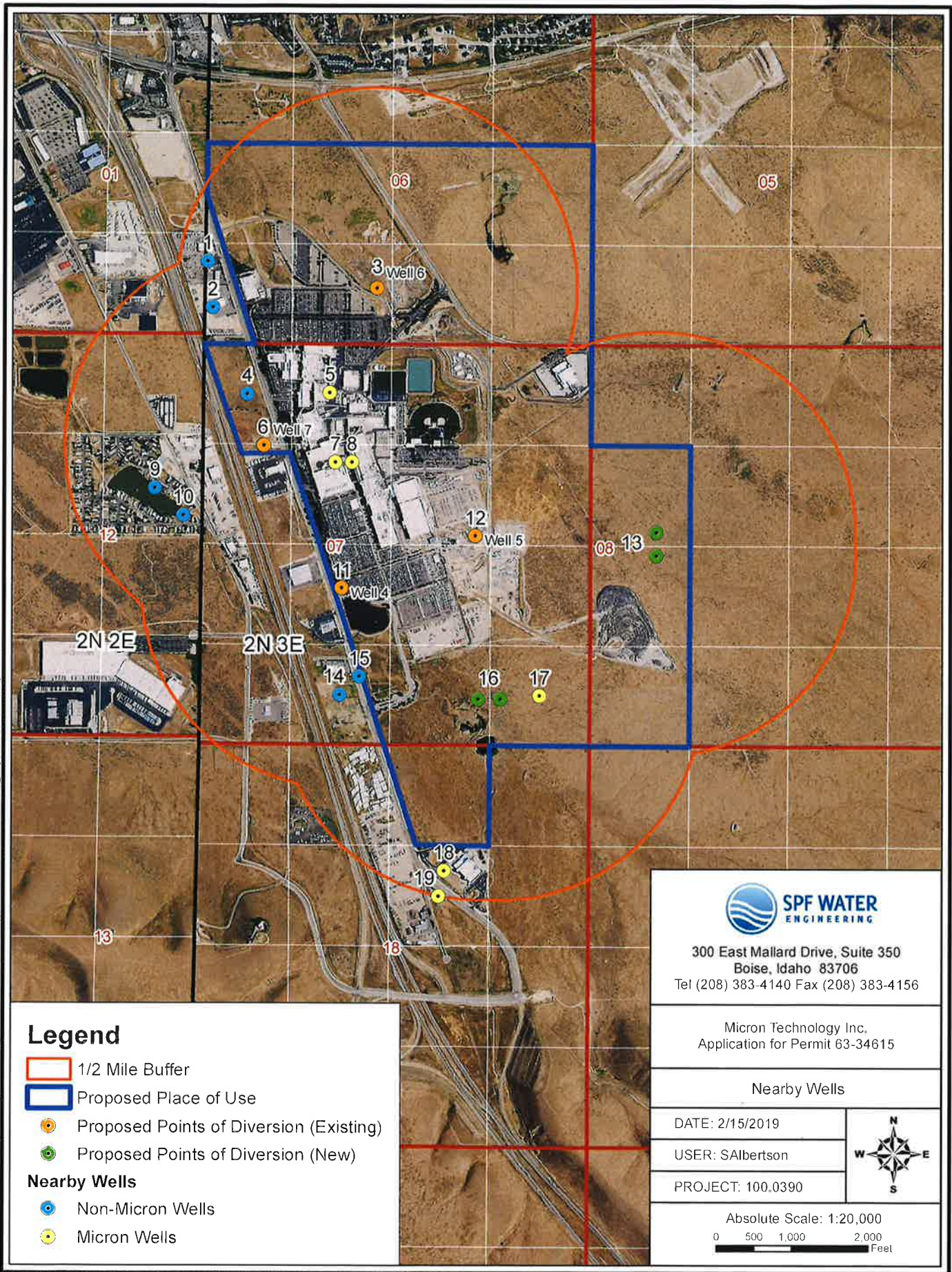
A – Nearby Wells and Associated Well Logs  
C – POD and POU Ownership Map

B – SEBGWMA 2017 Report  
D – Request for Comment Letters



**Attachment A**  
**Nearby Wells and Associated Well**  
**Logs**

Path: S:\PROJECTS\100.0390 Water Right Consulting Services\PROJECT\GIS\ArcMap\_Project\63-34615 nearby wells.mxd



COORDINATE REFERENCE SYSTEM: NAD 1983 2011 StatePlane Idaho West FIPS 1103 Ft US

**Micron Application 63-34615 Nearby Well Table**

Map Well No.	Owner	Construction Date	Permit ID	Township	Range	Section	QQQ	QQ	Quarter	Total Depth
1	CARLOS W DIMICK	10/14/1970	819918	02N	03E	6		SW	SW	413
2	WILLIS SHAW	1/20/1977	776203	02N	03E	6	SW	SW	SW	470
3	MICRON TECHNOLOGY INC	8/16/2006	838291	02N	03E	6		SE	SW	1095
4	BEECH	2/1/1972	820216	02N	03E	7		NW	NW	245
5	MICRON TECHNOLOGY INC	9/15/1983	816911	02N	03E	7		NE	NW	580
6	MICRON TECHNOLOGY INC	7/14/2016	877673	02N	03E	7		SW	NW	995
7	MICRON TECHNOLOGY INC	2/17/1998	731066	02N	03E	7	NW	SE	NW	811
8	MICRON TECHNOLOGY INC	1/9/1998	731067	02N	03E	7	NE	SE	NW	561
9	LEONARD EISEMAN	4/17/1975	783372	02N	03E	7	NE	SE	SE	505
10	LEONARD J EISENMAN	5/16/1965	855302	02N	02E	12	SE	NE	NE	503
11	MICRON TECHNOLOGY INC	6/30/1995	728934	02N	03E	7		NE	SW	1090
12	MICRON TECHNOLOGY INC	3/2/1998	729943	02N	03E	7		SW	NE	1217
13	MICRON TECHNOLOGY INC*	FUTURE	N/A	02N	03E	8		TBD	TBD	TBD
14	WILLIAM LOWE	7/30/1972	822501	02N	03E	7		SE	SW	420
15	HAROLD PETTIBONE	7/16/1994	728278	02N	03E	7		SE	SW	516
16	MICRON TECHNOLOGY INC*	FUTURE	N/A	02N	03E	7		TBD	TBD	TBD
17	MICRON TECHNOLOGY INC*	10/5/2000	767154	02N	03E	7		SE	SE	225
18	MICRON TECHNOLOGY INC	3/5/1993	842941	02N	03E	18		SW	NE	534
19	MICRON TECHNOLOGY INC*	UNK	779309	02N	03E	18		SW	NE	UNK

\*No log available



## WELL DRILLER'S REPORT

State law requires that this report be filed with the State Reclamation Engineer within 30 days after completion or abandonment of the well.

[illegible]

**USE ADDITIONAL SHEETS IF NECESSARY**

## FORWARD

FORM 10-1 THE WHITE, BLUE, AND PINK COPIES TO THE DEPARTMENT

Well 2

USE TYPEWRITER OR  
BALLPOINT PENSTATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES

## WELL DRILLER'S REPORT

MAR 20 1978

State 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

RECEIVED

c/c. E. Hill  
1/23/78  
reg. for loc.

## 1. WELL OWNER

Name Willis - ShawAddress Beise

Owner's Permit No. \_\_\_\_\_

## 7. WATER LEVEL

Static water level 365 feet below land surface.Flowing? ☐ Yes ☒ No G.P.M. flow \_\_\_\_\_

Temperature \_\_\_\_\_ °F. Quality \_\_\_\_\_

Artesian closed-in pressure \_\_\_\_\_ p.s.i.

Controlled by: ☐ Valve ☐ Cap ☐ Plug

## 2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement☐ Abandoned (describe method of abandoning)

## 8. WELL TEST DATA

☐ Pump ☐ Bailor ☒ Other

Discharge G.P.M. Drawdown Hours Pumped

153

## 3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test ☐ Other (specify type)☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal  
or Injection

## 4. METHOD DRILLED

☐ Cable ☒ Rotary ☐ Dug ☐ Other

## 5. WELL CONSTRUCTION

Diameter of hole 1 inches Total depth 495 feetCasing schedule: ☒ Steel ☐ Concrete

Thickness	Diameter	From	To
<u>250</u> inches	<u>8 1/2</u> inches	<u>1</u> feet	<u>919</u> feet
<u>250</u> inches	<u>6 3/4</u> inches	<u>2</u> feet	<u>418</u> feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

Was casing drive shoe used? ☒ Yes ☐ NoWas a packer or seal used? ☐ Yes ☒ NoPerforated? ☐ Yes ☒ NoHow perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation \_\_\_\_\_ inches by \_\_\_\_\_ inches

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☐ Yes ☒ No

Manufacturer's name \_\_\_\_\_

Type \_\_\_\_\_ Model No. \_\_\_\_\_

Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet

Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet

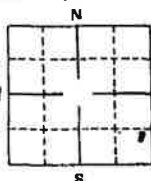
Gravel packed? ☐ Yes ☒ No Size of gravel \_\_\_\_\_

Placed from \_\_\_\_\_ feet to \_\_\_\_\_ feet

Surface seal depth 29 Material used in seal: ☐ Cement grout☒ Puddling clay ☒ Well cuttingsSealing procedure used: ☐ Slurry pit ☐ Temporary surface casing☒ Overbore to seal depth

## 6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name \_\_\_\_\_

Lot No. \_\_\_\_\_ Block No. \_\_\_\_\_

County AdaSE 1/4 SE 1/4 Sec. 1, T. 2 N. R. 2 E.

## 10.

Work started 1-12-77 finished 1-20-77

## 11. DRILLERS CERTIFICATION

Firm Name H. L. Weston Drilling Firm No. 35Address MT Home Date 1-20-77Signed by (Firm Official) Ron

and

(Operator) Ken Kohl

USE ADDITIONAL SHEETS IF NECESSARY - FORWARD THE WHITE COPY TO THE DEPARTMENT

IDAHO DEPARTMENT OF WATER RESOURCES  
**WELL DRILLER'S REPORT****Well 3**

838291

Office Use Only

Well ID No. **408673**

Inspected by

Twp. Rge. Sec.

1/4 1/4 1/4

Lat. : : Long. : :

PAGE 1 of 2

**1. WELL TAG NO. D 0042534**DRILLING PERMIT NO. **892995-838291**Water Right or Injection Well No. **63-31183, 63-8992, 63-9029****2. OWNER:**Name **Micron Technology**Address **8000 S Federal Way**City **Boise** State **ID** Zip **83707****3. LOCATION OF WELL by legal description:**

You must provide address or Lot, Blk, Sub. or Directions to well.

Twp. **2** North ☒ or South ☐Rge. **3** East ☒ or West ☐Sec. **6** 1/4 S/E 1/4 S/W 1/4Gov't Lot **6** County **Ada**

Lat. : : Long. : :

Address of Well Site **8000 S Federal Way**City **Boise**Lt. **1** Blk. **1** Sub. Name **Micron Tech. Campus****4. USE:**☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation  
☐ Thermal ☐ Injection ☐ Other **industrial****5. TYPE OF WORK** check all that apply (Replacement etc.)☒ New Well ☐ Modify ☐ Abandonment ☐ Other**6. DRILL METHOD:**☐ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other **reverse rotary****7. SEALING PROCEDURES**

Seal Material	From	To	Weight / Volume	Seal Placement Method
bentonite chips	0	252	13.3 yd	poured
cement grout	0	700	496 sk	pumped

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s)Was drive shoe seal tested? ☐ Y ☒ N How?**8. CASING/LINER:**

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
20"	0	252	250	steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16"	+2	700	375	steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe Length of Tailpipe

Packer ☒ Y ☐ N Type **figure K swedge pack 5'10"****9. PERFORATIONS/SCREENS PACKER TYPE** long 4'6" 12" X.375Perforation Method **casing**

Screen Type &amp; Method of Installation

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
see attached						<input type="checkbox"/>	<input type="checkbox"/>

**10. FILTER PACK**

Filter Material	From	To	Weight / Volume	Placement Method
#6-9 sand	690	1095	270 cu'	poured

**11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:****462** ft. below ground Artesian pressure **lb.**Depth flow encountered **ft.** Describe access port or control devices:**12. WELL TESTS:**☒ Pump ☐ Bailor ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time

Water Temp. Bottom hole temp. **73.69**

Water Quality test or comments:

Depth first Water Encounter

**13. LITHOLOGIC LOG: (Describe repairs or abandonment)**

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water	Y	N
24	0	1	pit run			X
	1	18	tan clay			X
	18	25	tan clay & broken basalt			X
	25	58	broken basalt			X
	58	75	hard broken basalt			X
	75	80	hard basalt			X
	80	81	void			X
	81	115	broken basalt			X
	115	197	cemented sand, gravel, boulders			X
	197	207	brown clay & gravel			X
	207	215	sand & gravel			X
	215	216	clay			X
	216	245	gravel			X
	245	252	gravel, sand, thin clay streaks			X
	252	268	clay & gravel			X
	268	280	reddish sand & gravel			X
	280	300	sand & finer gravel			X
	300	387	sand & gravel			X
	387	390	clay			X
	390	400	sand & gravel			X
	400	412	clay, sand & gravel			X
	412	450	sand & gravel			X
	450	470	reddish sand & gravel		X	
	470	475	tan clay			X
	475	495	sand & gravel		X	
	495	505	tan clay			X
	505	507	yellow clay			X
	507	510	white sand		X	
	510	520	tan clay, sand streaks			X
	520	560	sand, gravel, clay streaks			X
	560	570	white sand		X	
	570	620	reddish sand & gravel		X	

Completed Depth **1,082' bottom of tail pipe** (Measurable)Date: Started **4/15/06** Completed **8/16/06****14. DRILLER'S CERTIFICATION**

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name **Stevens & Sons** Firm No. **153**Principal Driller **Don Stevens** Date **8/21/06**Driller or Operator II **He Stevens** Date

Operator I Date

Principal Driller and Rig Operator Required.  
Operator I must have signature of Driller/Operator II.

FORWARD WHITE COPY TO WATER RESOURCES



Screen Schedule  
Micron Well No. 6

#9	10-inch well screen			10-inch blank casing			#8 liner
	Start	End	Length	Start	End	Length	
			0	690	695	5	
	695	700	5	700	710	10	
	710	725	15	725	756	31	
	756	796	40	796	816	20	
	816	886	70	886	905	19	
	905	955	50	955	970	15	
	970	980	10	980	990	10	
	990	1000	10	1000	1020	20	
	1020	1035	15	1035	1042	7	
	1042	1072	30	1072	1092	<del>20</del>	10
Total			245			<del>157</del>	197

All screens 40 slot, 304 stainless steel V wire by Johnson



Well 4

State of Idaho  
Department of Water Administration

## WELL DRILLER'S REPORT

State law requires that this report be filed with the State Reclamation Engineer within 30 days after completion or abandonment of the well.

Received  
6-13-72  
DWA

[illegible]

**USE ADDITIONAL SHEETS IF NECESSARY**

**FORWARD THE WHITE, BLUE, AND PINK COPIES TO THE DEPARTMENT**

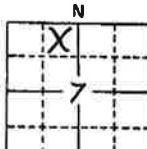
Well 5

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**WELL DRILLER'S REPORT**State 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.

USE TYPEWRITER OR

BALLPOINT PEN

OCT 5 1983

<b>1. WELL OWNER</b> Name <u>MICRON TECHNOLOGY INC.</u> Address <u>2805 E. COLUMBIA BOISE, IDAHO</u> Owner's Permit No. _____		<b>7. WATER LEVEL</b> Static water level <u>415</u> feet below land surface. Flowing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No G.P.M. flow _____ Artesian closed-in pressure _____ p.s.i. Controlled by: <input type="checkbox"/> Valve <input type="checkbox"/> Cap <input type="checkbox"/> Plug Temperature _____ OF. Quality <u>good</u> Describe artesian or temperature zones below.																																																																																			
<b>2. NATURE OF WORK</b> <input checked="" type="checkbox"/> New well <input type="checkbox"/> Deepened <input type="checkbox"/> Replacement <input type="checkbox"/> Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)		<b>8. WELL TEST DATA</b> <input type="checkbox"/> Pump <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Air <input type="checkbox"/> Other _____																																																																																			
<b>3. PROPOSED USE</b> <input type="checkbox"/> Domestic <input type="checkbox"/> Irrigation <input checked="" type="checkbox"/> Test <input type="checkbox"/> Municipal <input type="checkbox"/> Industrial <input type="checkbox"/> Stock <input type="checkbox"/> Waste Disposal or Injection <input type="checkbox"/> Other _____ (specify type)		<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>100</u></td><td><u>553</u></td><td><u>4</u></td></tr><tr><td colspan="3" style="text-align: center;"><b>85729</b></td></tr></tbody></table>		Discharge G.P.M.	Pumping Level	Hours Pumped	<u>100</u>	<u>553</u>	<u>4</u>	<b>85729</b>																																																																											
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<b>85729</b>																																																																																					
<b>4. METHOD DRILLED</b> <input checked="" type="checkbox"/> Rotary <input checked="" type="checkbox"/> Air <input type="checkbox"/> Hydraulic <input type="checkbox"/> Reverse rotary <input type="checkbox"/> Cable <input type="checkbox"/> Dug <input type="checkbox"/> Other _____		<b>9. LITHOLOGIC LOG</b> <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>17</td><td>0</td><td>3</td><td>BROWN CLAY</td><td></td><td>X</td></tr><tr><td>17</td><td>3</td><td>20</td><td>BLACK BASALT</td><td></td><td>X</td></tr><tr><td>17</td><td>20</td><td>50</td><td>BROKEN BASALT</td><td></td><td>X</td></tr><tr><td>17</td><td>50</td><td>52</td><td>BLACK BASALT</td><td></td><td>X</td></tr><tr><td>12</td><td>52</td><td>145</td><td>BLACK BASALT</td><td></td><td>X</td></tr><tr><td>10</td><td>145</td><td>495</td><td>Cemented sand, gravel + boulders</td><td></td><td>X</td></tr><tr><td>8</td><td>495</td><td>495</td><td>Cemented sand, gravel + boulders</td><td></td><td>X</td></tr><tr><td>8</td><td>495</td><td>510</td><td>BROWN SAND w/ CLAY</td><td></td><td>X</td></tr><tr><td>8</td><td>510</td><td>515</td><td>SAND, GRAVEL + BOULDERS</td><td></td><td>X</td></tr><tr><td>8</td><td>515</td><td>537</td><td>FINE GRAY SAND + SMALL GRAVEL</td><td>X</td><td></td></tr><tr><td>8</td><td>537</td><td>568</td><td>SAND, GRAVEL + BOULDERS</td><td>X</td><td></td></tr><tr><td>8</td><td>568</td><td>580</td><td>FINE GRAY SAND</td><td>X</td><td></td></tr></tbody></table>		Bore Diam.	Depth		Material	Water		From	To	Yes	No	17	0	3	BROWN CLAY		X	17	3	20	BLACK BASALT		X	17	20	50	BROKEN BASALT		X	17	50	52	BLACK BASALT		X	12	52	145	BLACK BASALT		X	10	145	495	Cemented sand, gravel + boulders		X	8	495	495	Cemented sand, gravel + boulders		X	8	495	510	BROWN SAND w/ CLAY		X	8	510	515	SAND, GRAVEL + BOULDERS		X	8	515	537	FINE GRAY SAND + SMALL GRAVEL	X		8	537	568	SAND, GRAVEL + BOULDERS	X		8	568	580	FINE GRAY SAND	X	
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<b>5. WELL CONSTRUCTION</b> Casing schedule: <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____ <table border="1"><thead><tr><th>Thickness</th><th>Diameter</th><th>From</th><th>To</th></tr></thead><tbody><tr><td><u>250</u> inches</td><td><u>12</u> inches</td><td><u>1</u> feet</td><td><u>52</u> feet</td></tr><tr><td><u>250</u> inches</td><td><u>10</u> inches</td><td><u>30</u> feet</td><td><u>380</u> feet</td></tr><tr><td><u>250</u> inches</td><td><u>8</u> inches</td><td><u>2</u> feet</td><td><u>553</u> feet</td></tr></tbody></table> Was casing drive shoe used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Was a packer or seal used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Perforated? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No How perforated? <input type="checkbox"/> Factory <input type="checkbox"/> Knife <input type="checkbox"/> Torch Size of perforation _____ inches by _____ inches Number _____ From _____ To _____ _____ perforations _____ feet _____ feet _____ perforations _____ feet _____ feet _____ perforations _____ feet _____ feet Well screen installed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Manufacturer's name _____ Type _____ Model No. _____ Diameter _____ Slot size _____ Set from _____ feet to _____ feet Diameter _____ Slot size _____ Set from _____ feet to _____ feet Gravel packed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Size of gravel _____ Placed from _____ feet to _____ feet Surface seal depth <u>52</u> Material used in seal: <input checked="" type="checkbox"/> Cement grout <input type="checkbox"/> Bentonite <input type="checkbox"/> Puddling clay <input type="checkbox"/> _____ Sealing procedure used: <input type="checkbox"/> Slurry pit <input type="checkbox"/> Temp. surface casing <input checked="" type="checkbox"/> Overbore to seal depth Method of joining casing: <input type="checkbox"/> Threaded <input checked="" type="checkbox"/> Welded <input type="checkbox"/> Solvent Weld _____ <input type="checkbox"/> Cemented between strata Describe access port <u>SANITARY WELL SEAL</u>		Thickness	Diameter	From	To	<u>250</u> inches	<u>12</u> inches	<u>1</u> feet	<u>52</u> feet	<u>250</u> inches	<u>10</u> inches	<u>30</u> feet	<u>380</u> feet	<u>250</u> inches	<u>8</u> inches	<u>2</u> feet	<u>553</u> feet	<div style="text-align: center;"><b>RECEIVED</b> OCT 05 1983 Department of Water Resources Western Regional Office</div>																																																																			
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<b>6. LOCATION OF WELL</b> Sketch map location <u>must</u> agree with written location. <div style="text-align: center;">N W  E S County <u>Ada</u> <u>NE</u> 1/4 <u>NW</u> 1/4 Sec. <u>7</u>, T. <u>2N</u> N/S, R. <u>3E</u> E/W.</div> Subdivision Name _____ Lot No. _____ Block No. _____		<b>10.</b> Work started <u>7-11-83</u> finished <u>9-15-83</u>																																																																																			
<b>11. DRILLERS CERTIFICATION</b> I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Firm Name <u>CESTRIN + YANKE DRILLING</u> Firm No. <u>408</u> Address <u>RT 1, DONNELLY, IDAHO</u> Date <u>9-15-83</u> Signed by (Firm Official) <u>Robert W. Cestrin</u> and (Operator) <u>Robert W. Cestrin</u>																																																																																					

IDAHO DEPARTMENT OF WATER RESOURCES  
WELL DRILLER'S REPORT

Well 6

## 1. WELL TAG NO. D 0071661

Drilling Permit No. 971617-877674

Water right or injection well #

## 2. OWNER:

Name Micron Technology Inc.

Address PO Box 6

City Boise State ID Zip 83707

## 3. WELL LOCATION:

Twp. 2 North ☒ or South ☐ Rge. 3 East ☒ or West ☐

Sec. 7 1/4 S.W. 1/4 N.W. 1/4

Gov't Lot 1 County Ada

Lat. 43 31.649 (Deg. and Decimal minutes)

Long. 116 09.023 (Deg. and Decimal minutes)

Address of Well Site east of the existing well and west of

Federal Way City Boise

(Give at least name of road or landmark)

Lot. Blk. Sub. Name

## 4. USE:

☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection  
☐ Other Industrial

## 5. TYPE OF WORK:

☐ New well ☒ Replacement well ☐ Modify existing well  
☐ Abandonment ☐ Other

## 6. DRILL METHOD:

☐ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other Reverse Rotary

## 7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft <sup>3</sup> )	Placement method/procedure
Bentonite chip	0'	221'	13.5 yards	Poured
Cement	0'	680'	43 yards	Pumped

## 8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing Liner	Threaded	Welded
20"	-2'	221'	.250	Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16"	+2'	686'	.375	Steel	<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"/>

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s)

## 9. PERFORATIONS/SCREENS:

Perforations ☐ Y ☒ N MethodManufactured screen ☒ Y ☐ N Type Johnson Vee Wire

Method of installation Lowered

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
				see page 2		

Length of Headpipe 23' Length of Tailpipe 20'

Packer ☒ Y ☐ N Type Figure K removable 5' long 12" casing

## 10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft <sup>3</sup> )	Placement method
6-9 sand	660'	1,000'	31,500 lbs	Poured

## 11. FLOWING ARTESIAN:

Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG)

Describe control device

## 12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft) 450 Static water level (ft) 450

Water temp. (°F) Bottom hole temp (°F)

Describe access port

## Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)
145 to 200	2000	940

## Test method:

Pump	Bailer	Air	Flowing artesian
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Water quality test or comments:

## 13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water	
				Y	N
30"	0'	5'	Topsoil		X
	5'	13'	Cemented gravel		X
	13'	54'	Broken basalt		X
24"	54'	160'	Broken basalt		X
	160'	167'	Cinders		X
	167'	217'	Sand & gravel		X
	217'	219'	Tan clay		X
	219'	221'	Tan clay with sand		X
20"	221'	252'	Tan clay with sand		X
	252'	267'	Quartz sand		X
	267'	275'	Talky clay		X
	275'	289'	Brown clay		X
	289'	440'	Streaks of sand & clay		X
	440'	450'	Rusty tan clay		X
	450'	475'	sand & gravel		X
	475'	547'	Clean sand & gravel	X	
	547'	670'	Sand & gravel with clay streaks	X	
16"	670'	688'	Clay		X
	688'	715'	Sand & gravel	X	
	715'	718'	Clay		X
	718'	738'	Sand & gravel	X	
	738'	755'	Clay		X
	755'	777'	Sand gravel with clay streaks	X	
	777'	783'	Clay		X
	783'	825'	Sand & gravel	X	
	825'	840'	Clay		X
	840'	880'	Sand & gravel	X	
	880'	885'	Clay		X
	885'	912'	Sand & gravel	X	
	912'	930'	Clay		X
	930'	1002'	Sand & gravel	X	

Completed Depth (Measurable): 995'

Date Started: Feb 10, 2016

Date Completed: Jul 14, 2016

## 14. DRILLER'S CERTIFICATION:

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Stevens &amp; Sons

Co. No. 153

Principal Driller Date Aug 3, 2016

Driller Date Aug 3, 2016

Operator II Date

Operator I Date

Signature of Principal Driller and rig operator are required

RECEIVED

SEP 14 2016

WATER RESOURCES  
WESTERN REGION

D0071641

Screen and Casing Schedule					
Micron Well No. 7 <i>365 well</i>					
10-inch SS Well Screen			10-inch Blank Casing		
Start	End	Length	Start	End	Length
			660	683	23
683	738	55			
			738	760	22
760	780	20			
			780	792	12
792	827	35			
			827	850	23
850	870	20			
			870	885	15
885	915	30			
			915	935	20
935	975	40			
			975	995	20
Total		200	Total		135
* All well screens to be 0.040-inch slot size					



IDAHO DEPARTMENT OF WATER RESOURCES

C

Well 7

WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

061041

Office Use Only			
Inspected by _____			
Twp _____	Rge _____	Sec _____	
1/4 _____	1/4 _____	1/4 _____	
Lat: _____	Long: _____		

1. DRILLING PERMIT NO. 63 - 97-C - 0854 - 001  
Other IDWR No. 000276

2. OWNER:

Name Micron Technology Inc  
Address 8000 South Federal Way P.O. Box 6  
City Boise State Id Zip 83707

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

N		Twp. <u>2</u>		North <input checked="" type="checkbox"/> or South <input type="checkbox"/>	
W		Rge. <u>3</u>		East <input checked="" type="checkbox"/> or West <input type="checkbox"/>	
E		Sec. <u>7</u>		NW 1/4 SE 1/4 1/4	
S		Gov't Lot _____		County _____	
		Lat: _____		Long: _____	

Address of Well Site 8000 South Federal Way City Boise  
(Give at least name of road + Distance to Road or Landmark)

Lt. \_\_\_\_\_ Blk. \_\_\_\_\_ Sub. Name \_\_\_\_\_

4. USE:

☐ Domestic ☐ Municipal ☒ Monitor ☐ Irrigation  
☐ Thermal ☐ Injection ☐ Other \_\_\_\_\_

5. TYPE OF WORK check all that apply (Replacement etc.)

☒ New Well ☐ Modify ☐ Abandonment ☐ Other \_\_\_\_\_

6. DRILL METHOD

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

7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT		METHOD
Material	From	To	Sacks or Pounds		
Benotnite	0	18	300		Odex
Cement	18"	800	108sack		OverBore
					Rumped up 1/2" down

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s) \_\_\_\_\_

Was drive shoe seal tested? ☐ Y ☒ N How? \_\_\_\_\_

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
10	+2	18	250	Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	+18"	800	250	Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	781	801	250	Steel	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe 20' Length of Tailpipe \_\_\_\_\_

9. PERFORATIONS/SCREENS

☐ Perforations Method \_\_\_\_\_  
☒ Screens Screen Type Johnsons

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
801	811	020		4	St. Steel	<input type="checkbox"/>	<input checked="" type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

497 ft. below ground Artesian pressure \_\_\_\_\_ lb.  
Depth flow encountered \_\_\_\_\_ ft. Describe access port or control devices: \_\_\_\_\_

11. WELL TESTS:

☐ Pump ☐ Bailor ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
20			2

Water Temp. \_\_\_\_\_ Bottom hole temp. \_\_\_\_\_

Water Quality test or comments: \_\_\_\_\_

Depth first Water Encountered \_\_\_\_\_

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
12"	0	18	Fill Odex		
8"	18	45	Gray lava		
8"	45	65	Red Cinders		
8"	65	100	Broken hard cemented off		
8"	100	123	Hard Gray Lava		
8"	123	136	brown Lava		
8"	136	150	Brown Lava		
8"	150	153	Brown Lava Water Talc		
8"	153	157	Brown Lava Water Talc		
8"	157	165	Gray Lava Cement		
8"	165	174	brown Lava		
8"	174	180	Gray Lava		
8"	180	245	Boulders & Gravels		
8"	245	450	Large gravels & Sand		
8"	450	470	Sand Clay		
8"	470	471	Tan Clay		
8"	471	557	Large Gravels & Sand		
8"	557	561	Med Sand		
8"	561	770	Gravels		
8"	770	800	Large Gravels & Sand		
6 7/8"	800	811	Med Sand		

RECEIVED

MAR 04 1998

RECEIVED

WATER RESOURCES  
WESTERN REGION

MAR 08 1998

Department of Water Resources

Completed Depth 811 (Measurable)  
Date: Started 1-11-98 Completed 2-17-98

13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Hiddleston & Son Inc Firm No. 35

Firm Official Roz Date 3/2/98

and \_\_\_\_\_

Supervisor or Operator John Smith Date 2-26-98

(Sign once if Firm Official & Operator)

IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

**Well 8**

Location Corrected by IDWR To:

T02N R03E Sec. 7 NESENW

By: mciscell 2012-09-06

1. DRILLING PERMIT NO. 63-97-C-0855-001  
Other IDWR No. D000277

2. OWNER:

Name Micron Technology  
Address 8000 S Federal Way P.O. Box 6  
City Boise State ID Zip 83707

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

N					
S					

Twp. 2 North ☒ or South ☐  
Rge. 3 East ☒ or West ☐  
Sec. 7 NW 1/4 SE 1/4 1/4  
Gov't Lot 10 County Ada 40 acres 160 acres  
Lat: : : Long: : :  
Address of Well Site 8000 S Federal  
Way City Boise  
(Give at least name of road + Distance to Road or Landmark)  
Lt.    Blk.    Sub. Name   

4. USE:

☐ Domestic ☐ Municipal ☒ Monitor ☐ Irrigation  
☐ Thermal ☐ Injection ☐ Other   

5. TYPE OF WORK check all that apply (Replacement etc.)

☒ New Well ☐ Modify ☐ Abandonment ☐ Other   

6. DRILL METHOD

☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other   

7. SEALING PROCEDURES

SEAL/FILTER PACK		AMOUNT		METHOD
Material	From	To	Sack or Pounds	
Benotinte	0	18	1200	OverBore
Cement	-3	380	47sack	

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s)     
Was drive shoe seal tested? ☐ Y ☒ N How?   

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
8	-3	22	250	steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	+18"	550	250	steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	541	551	250	steel	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe 10' Length of Tailpipe   

9. PERFORATIONS/SCREENS

☐ Perforations Method     
☒ Screens Screen Type Johnsons

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
551	561	020		4	stainless	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

487 ft. below ground Artesian pressure    lb.  
Depth flow encountered    ft. Describe access port or control devices:   

11. WELL TESTS:

Yield gal./min.	Drawdown	Pumping Level	Time
10			

Water Temp.    Bottom hole temp.   

Water Quality test or comments:   

Depth first Water Encountered   

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water	
				Y	N
12	0	18	Fill		
8	18	45	Gray Lava		
8	45	65	Red Cinders		
8	65	128	Broken up hard		
8	128	136	Brown Lava		
8	136	157	Brown Lava Water talc		
8	157	165	Gray Lava		
8	165	174	Brown Lava		
8	174	180	Gray Lava		
8	180	240	Burder & Sand		
8	240	380	Gravels & Sand		
8	380	450	Large gravels		
6	450	461	Brown clay		
6	461	555	Large gravel & sand		
6	555	558	Med tan sand	x	
6	558	561	Large gravels	x	

RECEIVED

MAR 04 1998

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WATER RESOURCES  
WESTERN REGION

MAR 06 1998

Department of Water Resources

Completed Depth 561 (Measurable)

Date: Started 12-12-97 Completed 1-09-98

13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Hiddleston & Son Inc Firm No. 35

Firm Official [Signature] Date 3/2/98

and Supervisor or Operator [Signature] Date 3/2/98

(Sign once if Firm Official & Operator)

## WELL DRILLER'S REPORT

Blue Valley Well No. 2

Well 9

State 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.

## 1. WELL OWNER

Name Leonard Eisenman  
Address Bailey, Idaho  
Owner's Permit No. \_\_\_\_\_

## 2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement  
☐ Abandoned (describe method of abandoning)

## 3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test ☐ Other (specify type)  
☒ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection

## 4. METHOD DRILLED

☒ Cable ☐ Rotary ☐ Dug ☐ Other

## 5. WELL CONSTRUCTION

Diameter of hole 12 inches Total depth 505 feet  
Casing schedule: ☒ Steel ☐ Concrete

Thickness	Diameter	From	To
<u>0.250</u> inches	<u>12</u> inches	<u>1</u> feet	<u>499</u> feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

Was casing drive shoe used? ☒ Yes ☐ No  
Was a packer or seal used? ☐ Yes ☒ No  
Perforated? ☐ Yes ☒ No  
How perforated? ☐ Factory ☐ Knife ☐ Torch  
Size of perforation \_\_\_\_\_ inches by \_\_\_\_\_ inches

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

40' of 10" perforated steel  
Well screen installed? ☐ Yes ☒ No

Manufacturer's name \_\_\_\_\_  
Type \_\_\_\_\_ Model No. \_\_\_\_\_  
Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
Diameter \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ feet to \_\_\_\_\_ feet

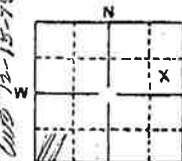
Gravel packed? ☐ Yes ☐ No Size of gravel \_\_\_\_\_  
Placed from \_\_\_\_\_ feet to \_\_\_\_\_ feet

Seal seal depth 32 Material used in seal ☐ Cement grout  
☐ Puddling clay ☒ Well cuttings

Sealing procedure used ☐ Shurry pit ☐ Temporary surface casing  
☒ Overbore to seal depth

## 6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name Blue Valley  
Mobile Home Park  
Lot No. \_\_\_\_\_ Block No. \_\_\_\_\_

County Ada  
SE NE 12 2 N 3 E  
T. \_\_\_\_\_ N/S, R. \_\_\_\_\_ E/W

## 7. WATER LEVEL

Measured 7-25-78 - 350'

Static water level 450 feet below land surface  
Flowing? ☐ Yes ☒ No G.P.M. flow \_\_\_\_\_  
Temperature \_\_\_\_\_ ° F. Quality \_\_\_\_\_  
Artesian closed-in pressure \_\_\_\_\_ p.s.i.  
Controlled by ☐ Valve ☐ Cap ☐ Plug

## 8. WELL TEST DATA

☐ Pump ☐ Bailer ☐ Other

Discharge G.P.M.	Draw Down	Hours Pumped
<u>NO TEST</u>		

## 9. LITHOLOGIC LOG

Hole Diam.	Depth		Material	Water	
	From	To		Yes	No
16"	0	5	Brown clay		
16"	5	30	Black Rock		
14"	30	248	Black Rock		
14"	248	370	Brown cement sand		
14"	370	440	Brown cement sand		
14"	440	505	Brown cement sand		

Note - Data from Leonard Eisenman:  
The Well No. 2 has a 12" casing to 410',  
then 90' of 10" screen. The 12" casing is  
grouted to approx 100' with Drilling Mud.  
Static Water Level in June 1978 = 351'

## 10.

Work started 6/20/74 finished 7/17/75

## 11. DRILLERS CERTIFICATION

Firm Name S.O.S. Well Drilling Firm No. 212Address 2305 Capernaum Rd. Date \_\_\_\_\_Signed by (Firm Official) Frank S. S. S.and RECEIVED  
(Operator)

**CARLYLE W. BRIGGS**  
CONSULTING ENGINEER

**CIVIL**  
DESIGN, APPRAISALS  
INVESTIGATIONS, REPORTS  
CONSTRUCTION, SUPERVISION

MUNICIPAL WATER SUPPLY  
IRRIGATION AND DRAINAGE  
HYDRAULIC INSTALLATIONS  
SEWERS AND SEWAGE

ROADS-STREETS-AIRPORTS

STRUCTURES OF CONCRETE,  
TIMBER, EARTH AND ROCK

Frank Keller, P.E.  
Environmental Engineer  
Division of Environment  
801 Reserve Street  
Boise, Idaho 83702

BRIGGS ENGINEER BUILDING  
619 GROVE STREET  
TELEPHONE (208) 343-3381  
BOISE, IDAHO 83702

December 15, 1978

**BRIGGS and ASSOCIATES**  
Consulting Engineers  
ESTABLISHED 1921

REGISTERED  
IDAHO, OREGON, WASHINGTON,  
UTAH, NEVADA

MINING-GEOLOGY

MECHANICAL

LAND PLANNING

RESIDENTIAL SUBDIVISIONS  
COMMERCIAL AND  
INDUSTRIAL SITES

Dear Mr. Keller:

Subject: Blue Valley Mobile Home Park - Well Logs - Permit No. 63-8401 1-6-77

Enclosed herewith is a copy of the well log for Well No. 1 and Well No. 2 at the subject mobile home park. We will arrange for a chemical analysis of the water from Well No. 2 as soon as it has been started and pumped for a few days time to stabilize flows and strata feed characteristics. Well No. 2 will not be connected into the mobile home park water system until chemical and bacteriological analysis has been satisfactorily completed.

The well log for Well No. 1 does not indicate how the well casing was sealed. Leonard Eisenman, who was present at the time the well was drilled, says that the casing was mudded into place with drillers mud, and then concrete was poured from the top of the carefully cleaned rock formation up to the ground surface pump platform, a height of approximately 2.5 feet.

The meter accompanying the log for Well No. 2 were made by Leonard Eisenman to provide information in addition to that listed in the well log. The casing for Well No. 2 was also sealed into place with drillers mud, and concrete will be poured from the top of the rock formation up into the well house floor, when the pump housing is constructed, as shown on our construction Dwg. No. CWB-780515.

Very truly yours,

*Carlyle W. Briggs*  
Carlyle W. Briggs, P.E.  
Consulting Engineer

cc: Chriswell & Freedman  
Leonard Eisenman  
Idaho Dept. of Water Resources ✓





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JUN 9 1965

Department of Reclamation

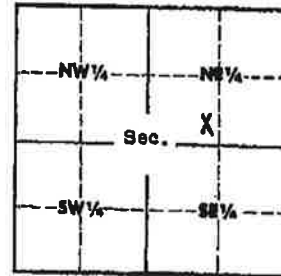
Well 10

WELL LOG AND REPORT TO THE  
STATE RECLAMATION ENGINEER OF IDAHO 008979

SUBMIT WITHIN 30 DAYS AFTER COMPLETION OF WELL: SEE IDAHO STATUTES 42-238

Permit No. \_\_\_\_\_ Well No. \_\_\_\_\_ County Ada  
Owner Leonard Eisenman  
Address 1104 North 18th street, Boise, Idaho  
Driller Orval Harden, Route 1, Boise, Idaho  
Address \_\_\_\_\_  
Well location SE 1/4 NE 1/4 Sec. 12, T2N N 1/2 R. 2E N 1/2  
Size of drilled hole 8"  
Total depth of well 503'

Locate well in section



Give depth to standing water from the ground 330' Water temp. \_\_\_\_\_ °Fahr.  
Estimated 50 GPM  
Test delivery was \_\_\_\_\_ g.p.m. or \_\_\_\_\_ c.f.s. Drawdown was \_\_\_\_\_ feet. Pump? \_\_\_\_\_ Bail? Yes  
Size of pump and motor used to make test Bailer tested only, could not draw down with bailer  
Length of time of test 4 hours \_\_\_\_\_ minutes.  
If flowing well, give flow \_\_\_\_\_ c.f.s. or \_\_\_\_\_ g.p.m. and of shut off pressure \_\_\_\_\_  
If flowing well, described control works \_\_\_\_\_  
(TYPE AND SIZE OF VALVE, ETC.)  
Water will be used for domestic Weight of casing per lineal foot 22  
Thickness of casing 219 Casing material steel  
(STEEL, CONCRETE, WOOD, ETC.)  
Diameter, length and location of casing 8" from ground level to 502' 3"  
(CASING 12" IN DIAMETER OR LESS, GIVE INSIDE DIAMETER;  
CASING OVER 12" IN DIAMETER, GIVE OUTSIDE DIAMETER)

CASING RECORD

Diam. Casing	From Feet	To Feet	Length	Remarks—seals, grouting, etc.
8"	0	502' 3"	502' 3"	

8 cuts per round, one round per foot, 3/16"x3"  
Number and size of perforations \_\_\_\_\_ located 417 feet to 496 feet from ground

Date of commencement of well March 7, 1965 Date of completion of well May 16, 1965

SENE S. 1/2 2N 2E

uass.

# WELL LOG

[illegible]

## WELL DRILLER'S STATEMENT

This well was drilled under my supervision and the above information is complete, true and correct to the best of my knowledge and belief.

**Signed**

By.

~~Orval~~ Harden

Dated June 7, 1965.

License No. 1

### Well Driller's Helper.

FORWARD WHITE COPY TO WATER RESOURCES

# IDAHO DEPARTMENT OF WATER RESOURCES

## WELL DRILLER'S REPORT

Use Typewriter  
or  
Ball Point Pen

4932 AUG 18 1995  
RECEIVED

Department of Military and Naval Affairs


1. DRILLING PERMIT NO. 63 - 95 - C - 0179 - 000  
Other IDWR No. 63-09357

**2. OWNER:**

Name MICRON TECHNOLOGY, INC.  
Address 2805 E. COLUMBIA ROAD  
City BOISE State ID Zip 83706

**3. LOCATION OF WELL by legal description:**

Sketch map location must agree with written location.



Twp. \_\_\_\_\_ North ☐ or South ☐  
 Rge. \_\_\_\_\_ East ☐ or West ☐  
 Sec. \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4  
 Gov't Lot \_\_\_\_\_ County \_\_\_\_\_

Address of Well Site

\_\_\_\_\_  
(Give at least name of road + Distance to Road or Landmark) City \_\_\_\_\_

Lt. \_\_\_\_\_ Blk. \_\_\_\_\_ Sub. Name \_\_\_\_\_

**4. PROPOSED USE:**

☐ Domestic    ☐ Municipal    ☐ Monitor    ☐ Irrigation  
☐ Thermal    ☐ Injection    ☐ Other

## 5. TYPE OF WORK

☐ New Well    ☐ Modify or Repair    ☐ Replacement    ☐ Abandonment

## 6. DRILL METHOD

☐ Mud Rotary   ☐ Air Rotary   ☐ Cable   ☐ Other

## 7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	

Was drive shoe used? ☐ Y ☐ N Shoe Depth(s) \_\_\_\_\_  
Was drive shoe seal tested? Y ☐ N ☐ How? \_\_\_\_\_

**8. CASING/LINER:**

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
					<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"/>

Length of Headpipe \_\_\_\_\_ Length of Tailpipe \_\_\_\_\_

## 9. PERFORATIONS/SCREENS

☐ Perforations      Method \_\_\_\_\_

☐ Screens      Screen Type \_\_\_\_\_

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

**10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:**

\_\_\_\_\_ ft. below ground      Artesian pressure \_\_\_\_\_ lb.  
Depth flow encountered \_\_\_\_\_ ft.      Describe access port or  
control devices:

## 11. WELL TESTS:

☐ Pump    ☐ Bailer    ☐ Air    ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
		Department of Water Resources	

Water Temp. \_\_\_\_\_ Bottom hole temp. \_\_\_\_\_

Water Quality test or comments:

## 12. LITHOLOGIC LOG: (Describe repairs or abandonment)

### Water

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
20	358	370	coarse sand & gravel		
		370	w/clay		
20	370	410	reddish brown coarse		
		410	gravel		
20	410	420	brown coarse gravel		
		420	w/clay layer		
20	420	461	cement coarse gravel		
		461	& cobbles		
20	461	462.5	brown clay		
20	462.5		brown coarse gravel		
		465	w/cobbles & traces of		
		465	clay		X
20	465	470	coarse sand & small		
		470	gravel		X
20	470	472	brown clay		
20	472	475	brown clay w/sand layers		
20	475	476	brown clay		
20	476	484	coarse brown sand and		
		484	gravel		X
20	484	533	coarse gravel & sand		
		533	w/cobbles		X
20	533	539	coarse gravel & sand		
		539	w/cobbles & rusty clay		X
20	539	541	gravel & sand w/white		X
		541	sandy clay		
20	541	548	brown clay w/some gravel		
20	548	550	sand & gravel		X
20	550	626	coarse brown sand and		
		626	gravel w/layers of clay		
20	626	664	brown gravel w/clay		
		664	layers		X
			PAGE 2 OF 5		

Completed Depth 1090' (Measurable)

Date: Started 4/29/95 Completed 6/30/95

### 13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name HIDDLESTON & SON, INC. Firm No. 35

Firm Official [Signature] Date 8/17/94

and

Supervisor or Operator \_\_\_\_\_ Date \_\_\_\_\_

(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

POOR QUALITY


1. DRILLING PERMIT NO. 63 - 95 - C - 0179 - 000  
Other IDWR No. 63-09357

**2. OWNER:**

Name MICRON TECHNOLOGY, INC.  
Address 2805 E. COLUMBIA ROAD  
City BOISE State ID Zip 83706

**3. LOCATION OF WELL by legal description:**

Sketch map location must agree with written location.



Twp. \_\_\_\_\_ North ☐ or South ☐  
 Rge. \_\_\_\_\_ East ☐ or West ☐  
 Sec. \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4  
 Gov't Lot \_\_\_\_\_ County \_\_\_\_\_

Address of Well Site

City \_\_\_\_\_

(Give at least name of road + Distance to Road or Landmark)

Lt.                      Blk.                      Sub. Name

**4. PROPOSED USE:**

☐ Domestic    ☐ Municipal    ☐ Monitor    ☐ Irrigation  
☐ Thermal    ☐ Injection    ☐ Other

## 5. TYPE OF WORK

☐ New Well    ☐ Modify or Repair    ☐ Replacement    ☐ Abandonment

## 6. DRILL METHOD

☐ Mud Rotary   ☐ Air Rotary   ☐ Cable   ☐ Other \_\_\_\_\_

## 7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	

Was drive shoe used? ☐ Y ☐ N Shoe Depth(s)

Was drive shoe seal tested? Y ☐ N ☐ How?

**8. CASING/LINER:**

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
					<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"/>

Length of Headpipe \_\_\_\_\_ Length of Tailpipe \_\_\_\_\_

## 9. PERFORATIONS/SCREENS

Perforations	Method
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
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93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

☐ Screens Screen Type

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

**10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:**

\_\_\_\_ ft. below ground      Artesian pressure \_\_\_\_\_ lb.

Depth flow encountered \_\_\_\_\_ ft. Describe access port or control devices: \_\_\_\_\_

## 11. WELL TESTS:

☐ Pump    ☐ Baildown    ☐ Air    ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time

Water Temp. \_\_\_\_\_ Bottom hole temp. \_\_\_\_\_

Water Quality test or comments:

**12. LITHOLOGIC LOG: (Describe repairs or abandonment)**

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
20	664	680	coarse brown gravel		
		660	w/clay	X	
20	680	695	coarse brown gravel	X	
20	695	710	brown clay w/trace of		
		710	gravel		
20	710	720	coarse brown gravel-		
		720	dirty	X	
20	720	756	coarse brown gravel	X	
20	756	761	brown clay w/sand and		
		761	gravel		
20	761	768	brown sand & small		
		768	gravel w/streaks of clay	X	
20	768	777	brown sand & gravel	X	
20	777	784	brown sand & smaller		
		784	gravel w/traces of clay	X	
20	784	795	tan-brown sandy clay		
20	795	811	brown sand & gravel	X	
		811	w/thin layers of clay		
20	811	820	brown sandy clay		
20	820	823	coarse gravel	X	
20	823	828	brown sandy clay		
20	828	842	coarse gravel & sand	X	
20	842	856	sandy brown clay		
20	856	860	coarse brown sand	X	
20	860	891	brown sand & gravel		
		891	w/traces of clay -		
		891	boulders @ 877-888	X	
20	891	892	sandy brown clay		
20	892	896	sand & gravel w/layers		
		896	of clay	X	
20	896	899	sand & gravel w/more		
		899	clay	X	
			PAGE 3 OF 5		
Completed Depth			1090'	(Measurable)	
Date: Started			4/28/95	Completed 6/30/95	

### 13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name FIDDLESTON & SON, INC. Firm No. 35

Firm Official Mark S. Kuchler Date 8/17/05

and

Supervisor or Operator \_\_\_\_\_ Date \_\_\_\_\_

(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES



IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

49329

Office Use Only  
Inspected by \_\_\_\_\_  
Twp \_\_\_\_\_ Rge \_\_\_\_\_ Sec \_\_\_\_\_  
1/4 1/4 1/4  
Lat: \_\_\_\_\_ Long: \_\_\_\_\_

1. DRILLING PERMIT NO. 63 - 95 - C - 0179 <sup>200</sup>  
Other IDWR No. 63-09357

2. OWNER:

Name MICRON TECHNOLOGY, INC.  
Address 2805 E. COLUMBIA ROAD  
City BOISE State ID Zip 83706

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

N  
W E S  
Twp. \_\_\_\_\_ North ☐ or South ☐  
Rge. \_\_\_\_\_ East ☐ or West ☐  
Sec. \_\_\_\_\_ 1/4 1/4 1/4 1/4  
Gov't Lot \_\_\_\_\_ County \_\_\_\_\_  
Lat: \_\_\_\_\_ Long: \_\_\_\_\_  
Address of Well Site \_\_\_\_\_ City \_\_\_\_\_  
(Give at least name of road + Distance to Road or Landmark)

Lt. \_\_\_\_\_ Bk. \_\_\_\_\_ Sub. Name \_\_\_\_\_

4. USE:

- ☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation  
☐ Thermal ☐ Injection ☐ Other \_\_\_\_\_

5. TYPE OF WORK check all that apply (Replacement etc.)

- ☐ New Well ☐ Modify ☐ Abandonment ☐ Other \_\_\_\_\_

6. DRILL METHOD

- ☐ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other \_\_\_\_\_

7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT Sacks or Pounds	METHOD
Material	From	To		

Was drive shoe used? ☐ Y ☐ N Shoe Depth(s) \_\_\_\_\_

Was drive shoe seal tested? ☐ Y ☐ N How? \_\_\_\_\_

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
					<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"/>

Length of Headpipe \_\_\_\_\_ Length of Tailpipe \_\_\_\_\_

9. PERFORATIONS/SCREENS

- ☐ Perforations Method \_\_\_\_\_  
☐ Screens Screen Type \_\_\_\_\_

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

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

\_\_\_\_\_ ft. below ground Artesian pressure \_\_\_\_\_ lb.  
Depth flow encountered \_\_\_\_\_ ft. Describe access port or control devices: \_\_\_\_\_

11. WELL TESTS:

- ☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal/min.	Drawdown	Pumping Level	Time

Water Temp. \_\_\_\_\_ Bottom hole temp. \_\_\_\_\_

Water Quality test or comments: \_\_\_\_\_

Depth first Water Encountered \_\_\_\_\_

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water	
				Y	N
20	899	907	sand & gravel	X	
20	907	925	brown sandy clay		
20	925	927	brown sand		
20	927	965	brown sandy clay		
20	965	985	brown dirty sand and gravel		
				X	
20	985	995	brown sand & gravel	X	
20	995	1025	brown coarse sand and gravel		
				X	
20	1025	1055	coarse sandy clay and gravel		
				X	
20	1055	1076	coarse clean sand and gravel		
				X	
20	1076	1101	coarse sandy clay and gravel		
				X	

RECEIVED

AUG 31 1995

Department of Water Resources

AUG 18 1995

Department of Water Resources

PAGE 4 OF 5

Completed Depth 1090' (Measurable)

Date: Started 4/28/95 Completed 6/30/95

13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name HIDDLESTON & SON, INC. Firm No. 35

Firm Official *Mark Hiddleston* Date 8/17/95

and Supervisor or Operator \_\_\_\_\_ Date \_\_\_\_\_

(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

49330

PAGE 5 OF 5

63-95-C-0179-200

RECEIVED

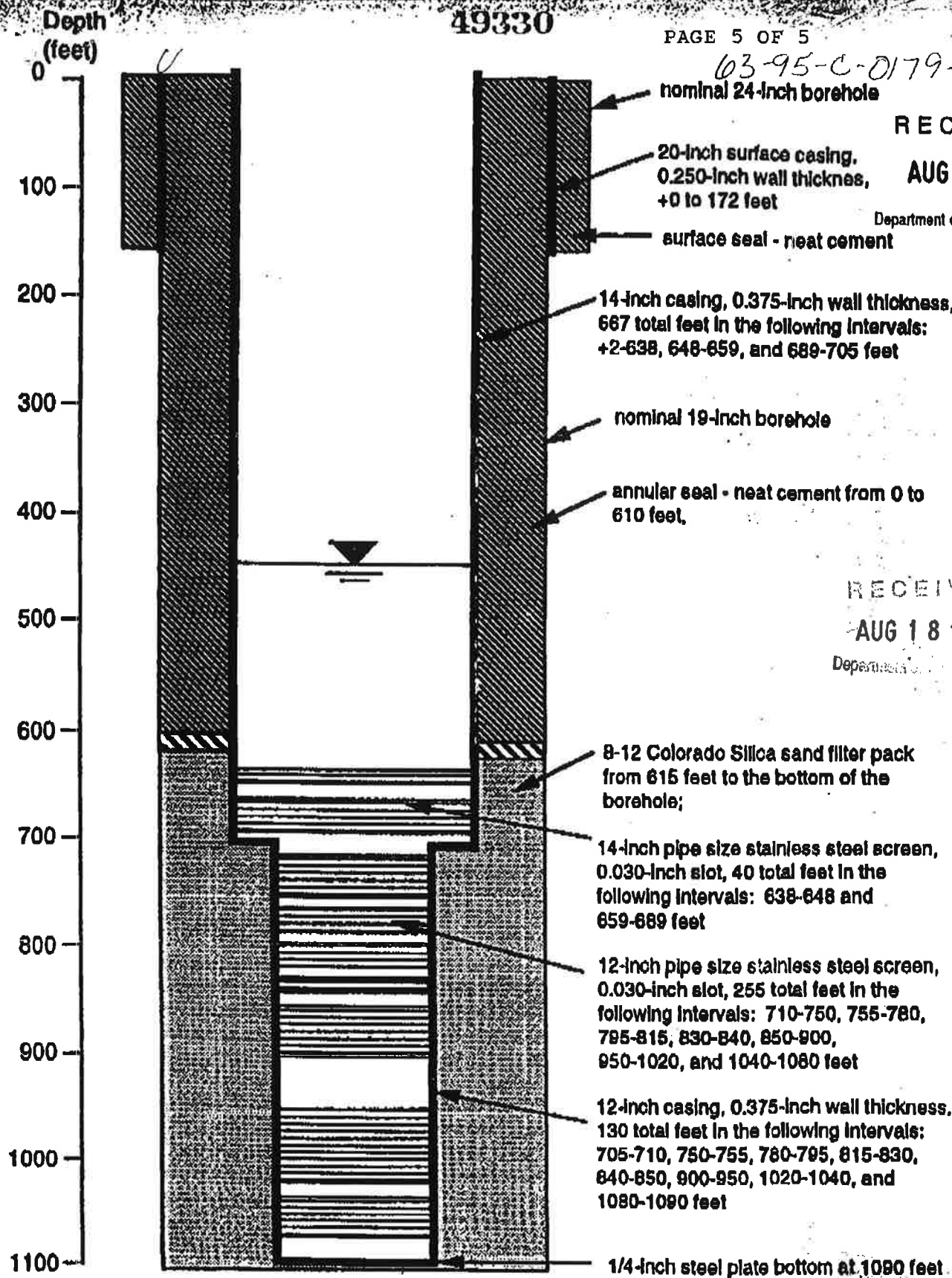
AUG 31 1995

Department of Water Resources

RECEIVED

AUG 18 1995

Department of Water Resources



## MICRON WELL NO. 4 - FINAL WELL DESIGN







FORWARD WHITE COPY TO WATER RESOURCES

061040

## 16-inch casing and screen schedule, Micron Well No. 5

screen			blank casing	
interval	length	slot size	interval	length
630-660	30	70	600-630	30
675-705	30	70	660-675	15
715-750	35	70	705-715	10
809-834	25	70	750-809	59
859-879	20	70	834-859	25
895-905	10	70	879-895	16
917-947	30	70	905-917	12
962-977	15	70	947-962	15
995-1015	20	70	977-995	18
1046-1056	10	70	1015-1046	31
1091-1101	10	70	1056-1091	35
1110-1170	60	70	1101-1110	9
1183-1203	20	70	1170-1183	13
			1203-1210	7
Total	315			295

RECEIVED RECEIVED

APR 07 1998 APR 09 1998

WATER RESOURCES  
WESTERN REGION Department of Water Resources

REPORT OF WELL DRILLER  
State of Idaho

Well 14

State law requires that this report shall be filed with the State Reclamation Engineer within 30 days after completion or abandonment of the well.

WELL OWNER:

Name William Rouse  
Address Old Mt Hope Hwy

Owner's Permit No.

NATURE OF WORK (check): Replacement well ☐

New well ☒ Deepened ☐ Abandoned ☐

Water is to be used for: Domestic

METHOD OF CONSTRUCTION: Rotary ☒ Cable ☐

Dug ☐ Other ☐

(explain)

CASING SCHEDULE: Threaded ☐ Welded ☐

6 "Diam. from          ft. to          ft.

"Diam. from          ft. to          ft.

"Diam. from          ft. to          ft.

"Diam. from          ft. to          ft.

Thickness of casing:          Material:         

Steel ☒ concrete ☐ wood ☐ other ☐

(explain)

PERFORATED? Yes ☒ No ☐ Type of perforator used: Drill

Size of perforations: " by "

perforations from          ft. to          ft.

perforations from          ft. to          ft.

perforations from          ft. to          ft.

perforations from          ft. to          ft.

WAS SCREEN INSTALLED? Yes ☐ No ☒

Manufacturer's name None

Type ND Model No.         

Diam.          Slot size          Set from          ft. to          ft.

Diam.          Slot size          Set from          ft. to          ft.

CONSTRUCTION: Well gravel packed? Yes ☒

No. ☐ size of gravel 1/4 Gravel

placed from 25 ft. to 400 ft. Surface seal

provided? Yes ☒ No ☐ To what depth?

25 ft. Material used in seal: Bitumen

Did any strata contain unusable water? Yes ☐

No. ☒ Type of water:         

Depth of strata          ft. Method of sealing

strata off:         

Surface casing used? Yes ☐ No. ☐

Cemented in place? Yes ☐ No ☐

Locate well in section


LOCATION OF WELL: County Ada

SE 1/4 Sec. 7 T. 2 N. R. 8 E

18 x 19 Sub

Use other side for additional remarks

Size of drilled hole: 12 1/4 Total depth of well: 400 Standing water level below ground:          Temp.         

Fahr.          ° Test delivery:          gpm

or cfs Pump? ☐ Bail ☒

Size of pump and motor used to make test: None

Length of time of test:          Hrs. /          Min.

Drawdown:          ft. Artesian pressure:          ft.

above land surface          Give flow          cfs

or gpm. Shutoff pressure:         

Controlled by: Valve ☐ Cap ☐ Plug ☐

No control ☐ Does well leak around casing? Yes ☐ No ☐

DEPTH MATERIAL WATER

FROM TO YES OR NO

FEET FEET

0 15 TOP SOIL SSW                  

15 105 LAKE ROCK                  

105 200 SAND GRAVEL                  

200 370 TOP SOIL                  

370 400 LAKE ROCK                  

Work started:         

Work finished:         

Well Driller's Statement: This well was drilled under my supervision and this report is true to the best of my knowledge.

Name: William Rouse

Address: RT 3 POISE

Signed by: William Rouse

License No. 74 Date: 1-30-71

USGS

Well 15

068668

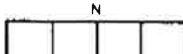
1. DRILLING PERMIT NO. 63-94 W 0409-001  
Other IDWR No. \_\_\_\_\_

**2. OWNER:**

Name Harold Pettibone  
Address 9145 Federal Way  
City Boise State ID Zip 83706

**3. LOCATION OF WELL by legal description:**

Sketch map location must agree with written location.



Twp. 2 North ☒ or South ☐  
 Rge. 3 East ☒ or West ☐  
 Sec. 7  
 Gov't Lot \_\_\_\_\_ County Ada

1/4 1/4 S/W 1/4  
 10 acres 40 acres 160 acres

Address of Well Site 9145 Federal Way  
City Boise

LT. 15 Blk.            Sub. Name Harlan Sub

**4. PROPOSED USE:**

☒ Domestic    ☐ Municipal    ☐ Monitor    ☐ Irrigation  
☐ Thermal    ☐ Injection    ☐ Other \_\_\_\_\_

5. TYPE OF WORK *deepen*

☐ New Well ☒ Modify or Repair ☐ Replacement ☐ Abandonment

## 6. DRILL METHOD

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

## 7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	
#8-12 Colorado sand			500#	

Was drive shoe used? Y ☐ N ☒ ~~XX~~  
Was drive shoe seal tested? Y ☐ N ☒ ~~XX~~ How?

**8. CASING/LINER:**

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
4"	445	485	.250	steel	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4"	515	516'	.250	steel	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe 40' Length of Tailpipe 1' 6"

## 9. PERFORATIONS/SCREENS

☐ Perforations Method \_\_\_\_\_  
☒ Screens Screen Type Johnson stainless

From	To	Slot Size	Number	Diameter	Material	Casing	Lines
485	515	30		4"	stnls	<input type="checkbox"/>	<input checked="" type="checkbox"/>
						<input type="checkbox"/>	<input checked="" type="checkbox"/>
						<input type="checkbox"/>	<input checked="" type="checkbox"/>

**10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:**

\_\_\_\_ ft. below ground      Artesian pressure \_\_\_\_ lb.  
Depth flow encountered \_\_\_\_ ft. Describe access port or  
control devices:

## 11. WELL TESTS:

☐ Pump    ☐ Bailer    ☐ Air    ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time

Water Temp. \_\_\_\_\_ Bottom hole temp. \_\_\_\_\_

**Water Quality test or comments:** \_\_\_\_\_

## 12. LITHOLOGIC LOG: (Describe repairs or abandonment) Water

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
6	450	515	<del>cemented sand &amp; gravel</del>	X	
	515	549	<del>cemented sand &amp; gravel</del>		X
<p><b>RECEIVED</b></p> <p><b>APR 14 1997</b></p> <p>Department of Water Resources</p>					
<p><b>RECEIVED</b></p> <p><b>APR 08 1997</b></p> <p><b>WATER RESOURCES</b> <b>WESTERN REGION</b></p>					

Completed Depth 516' (Measurable)  
Date: Started 5/16/94 Completed 7/16/94

### 13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Stevens & Sons Firm No. 153

Firm Official Wayne Stevens Date 11/1/83

and

Supervisor or Operator                     

(Sign only if Firm Official or Operator)

FORWARD WHITE COPY TO WATER RESOURCES

**USE TYPEWRITER OR  
BALLPOINT PEN**

State 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.

[illegible]



**Attachment B**  
**SEBGWMA 2017 Report**

# **ANNUAL SUMMARY OF GROUND WATER CONDITIONS IN THE SOUTHEAST BOISE GROUND WATER MANAGEMENT AREA CALENDAR YEAR 2017**

This report describes the ground water conditions in and around the Southeast Boise Ground Water Management Area (GWMA) based on the ground water level observation network established in the spring of 2000 under the guidance of the Southeast Boise Ground Water Advisory Committee (Advisory Committee). The network is a cooperative effort among Micron Technologies, Inc., Suez Water Idaho Inc., and the Idaho Department of Water Resources (IDWR). The J.R. Simplot Co., City of Boise, Sunroc Corp., and other land owners also provide access to wells. Each cooperator submits water level data to IDWR which is maintained in a single database.

## **Status of Monitoring Network**

The network currently consists of 32 active monitoring sites (see Figure 1). The core monitoring network has remained fairly stable over time, but several wells have been added over the last few years and a few were discontinued (see Table 1). Three wells outside the GWMA boundary – 20-Mile Farm, Sunroc, and Micron South (sites 1, 9, and 17 respectively) – were added to the network in 2017 to 2018. Data for a 5-piezometer nested well and a domestic well from the Treasure Valley monitoring network is incorporated into this report (sites 31 and 32). Monitoring at the Micron Test #2 well was discontinued in 2016. Wells that have been designated as inactive monitoring sites and are no longer included in the Southeast Boise GWMA reports are listed at the bottom of Table 1.

Current monitoring frequency for active wells ranges from daily to quarterly. Data from all cooperators is submitted electronically to IDWR for incorporation into the annual network report. Seven wells (Figure 1) have been equipped with In-Situ™ pressure transducers programmed to collect measurements twice daily. Data from five of the wells is included in this report, but data from the 20-Mile Farm and Sunroc wells is not included due to the short period of record.

## **Ground-Water Level Trends**

Ground water level hydrographs for active wells in the network are shown in Appendix A. For ease of creation and comparison, the date range for all hydrographs has been set to begin at January 1, 1990 and end at January 1, 2018.

Water levels in the majority of wells with available data declined from 1990 to 2003 and rose from 2003 through 2015 with some exceptions. The JR Flat, Hollilynn, Ten Mile, Centennial, Market, Terteling, Columbia, and TVHP 4 wells are subject to significant seasonal and pumping effects making it difficult to draw meaningful conclusions from the hydrographs. The Agenbroad, Hurok, Hammer Flats, Harris S. Cole wells show slight to moderate declines, while the Boise Gun Club, and IDL House wells have experienced significant declines from 2003 through 2016 but the rate of decline appears to be moderating in recent years. Water levels in the Blacks Creek, Helen Lowder Park, and Lenzi wells appear to be stable.



Water levels rose in most of the other wells since 2003, with slight to significant rise in the Whitney Fire, East Boise Ave, Bergeson, Simplot, Christensen, and Croman wells. Water levels in the Pettibone, Micron Shallow, Micron Deep, Micron Test #1, and Pioneer wells were stable to increasing for many years, but have experienced declines ranging from approximately 5 to 25 feet over the past 2 to 3 years.

## **Recommendations**

At the 2014 annual meeting, the Advisory Committee recommended an expansion of the monitoring network to include additional wells west of the GWMA boundary. Three wells in or near areas where there appears to be interest in development are included in this report. We continue to look for expanded opportunities for additional wells, installation of pressure transducers, and inclusion of data from other entities.

IDWR is working with the City of Boise to drill a new dedicated monitoring well in the area southeast of the airport. While this well will be close to the JR Flat well, it will allow for installation of a pressure transducer and should be less likely to be impacted by pumping. We are also working with the Idaho Transportation Department to gain access to, and to install and measuring port in the Rest Area well.

## **Tables**

1. Summary of Ground Water Monitoring Network for Southeast Boise GWMA

## **Figures**

1. Current (2017) Southeast Boise GWMA Monitoring Network

## **Appendix**

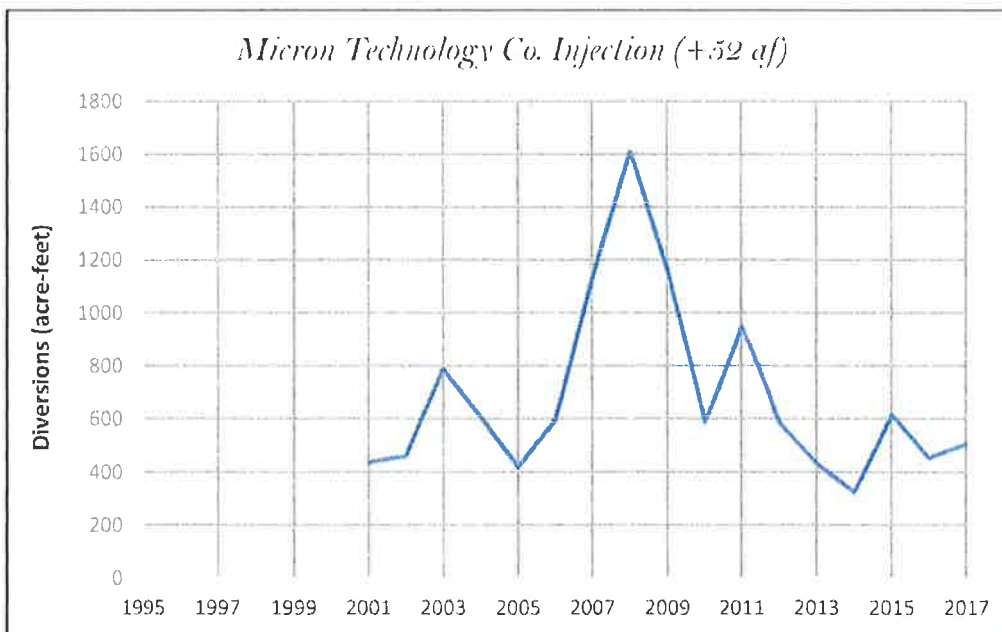
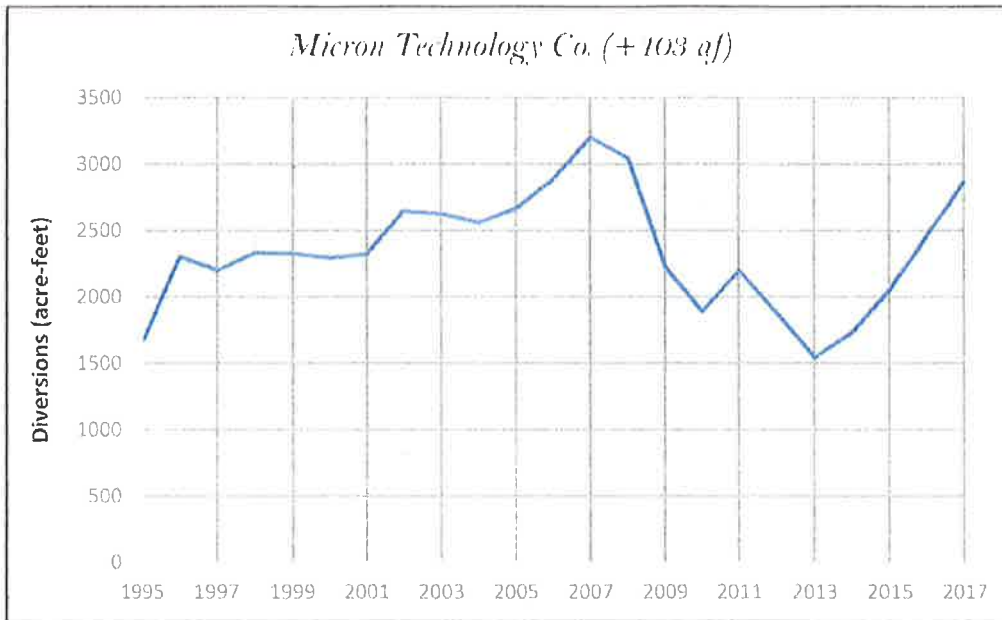
- A. Hydrographs of Wells Monitored for the Southeast Boise GWMA

**Table 1. Summary of Ground Water Monitoring Network for Southeast Boise GWMA.**

Map ID	Well ID	Well Name	Period of Water Level Record	Status of Well	Comments
1	01N 01E 34AAA1	20-Mile Farm	2018	Active	Transducer installed January 2018
2	01N 03E 04BBD1	Prigge	1994 - 2018	Active	Transducer installed October 2014
3	01N 04E 28CAC1	Agenbroad	1979 - 2018	Active	
4	02N 01E 36BBB1	Harris S Cole	1969 - 2018	Active	
5	02N 02E 02BBC2	JR Flat	1989 - 2018	Active	
6	02N 02E 04CBB1	ID Lands House	1973 - 2018	Active	Transducer installed March 2017
7	02N 02E 07CBC1	Hollylynn	1993 - 2018	Active	
8	02N 02E 17ABD1	Ten Mile	1996 - 2018	Active	
9	02N 02E 21CBB1	Sunroc	2018	Active	Transducer installed April 2018
10	02N 02E 22BBB1	Pioneer	1998 - 2018	Active	
11	02N 02E 34CCD1	Boise Gun Club	1976 - 2018	Active	Transducer installed November 2016
12	02N 03E 06DCA1	Micron Test #1	1986 - 2018	Active	
13	02N 03E 07CDA1	Pettibone	1997 - 2018	Active	
14	02N 03E 07DBB1	Micron Shallow	1998 - 2018	Active	
15	02N 03E 07DBB2	Micron Deep	1998 - 2018	Active	
16	02N 03E 09BAA2	Christensen	1993 - 2018	Active	
17	02N 03E 19DBB1	Micron South	2017-2018	Active	
18	02N 03E 34ACC1	Blacks Creek	2012 - 2018	Active	Transducer installed October 2014
19	03N 02E 25ACBC1	H Lowder Park	1992 - 2018	Active	
20	03N 02E 25CAA1	Centennial	1976 - 2018	Active	
21	03N 02E 26DBA1	Bergeson	1990 - 2018	Active	
22	03N 02E 35BAB1	Market	1991 - 2018	Active	
23	03N 02E 36ABC1	Terteling	1972 - 2018	Active	
24	03N 02E 36DCB1	Croman	1991 - 2018	Active	
25	03N 03E 30BCBD1	Hurok	1969 - 2018	Active	
26	03N 03E 30DDAA1	E Boise Ave	1987 - 2018	Active	Transducer installed April 2017.
27	03N 03E 31ADD1	Simplot	1993 - 2018	Active	
28	03N 03E 32BBAI	Whitney Fire	1975 - 2018	Active	
29	03N 03E 32CDD1	Columbia	1990 - 2018	Active	
30	03N 03E 33DAA1	Hammer Flats	1969 - 2018	Active	
31	03N 02E 14ABC	TVHP 4-1 to 5	2002 - 2018	Active	Transducer installed August 2016
32	03N 02E 11DDD1	Lenzi	1977 - 2018	Active	Transducer installed June 2016
	02N 03E 07BAC1	Micron Test #2	1983 - 2015	Inactive	Discontinued in 2016
	03N 03E 31BDD1	Oregon Trail	1977 - 2012	Inactive	Discontinued in 2013
	02N 03E 28CAA1	Rest Area	2007 - 2013	Inactive	Discontinued in 2014
	03N 02E 25CBCA1	Motiv Power 41A	1997 - 2015	Inactive	Discontinued in 2015
	02N 02E 04CAA1	ID Lands Field	2000 - 2009	Inactive	Discontinued in 2010
	02N 03E 09BCA2	Guyer	1993 - 2007	Inactive	Discontinued in 2007

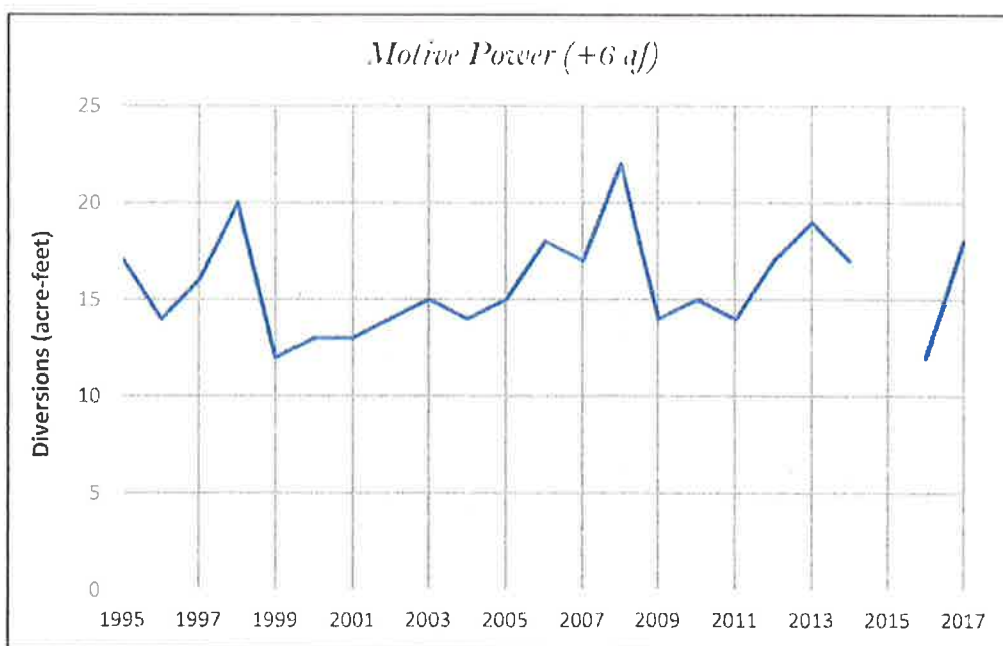
TOTAL NET PRODUCTION

**Annual Diversion Reporting for the Southeast Boise GWMA**  
**Calendar Year 2017 Diversions**



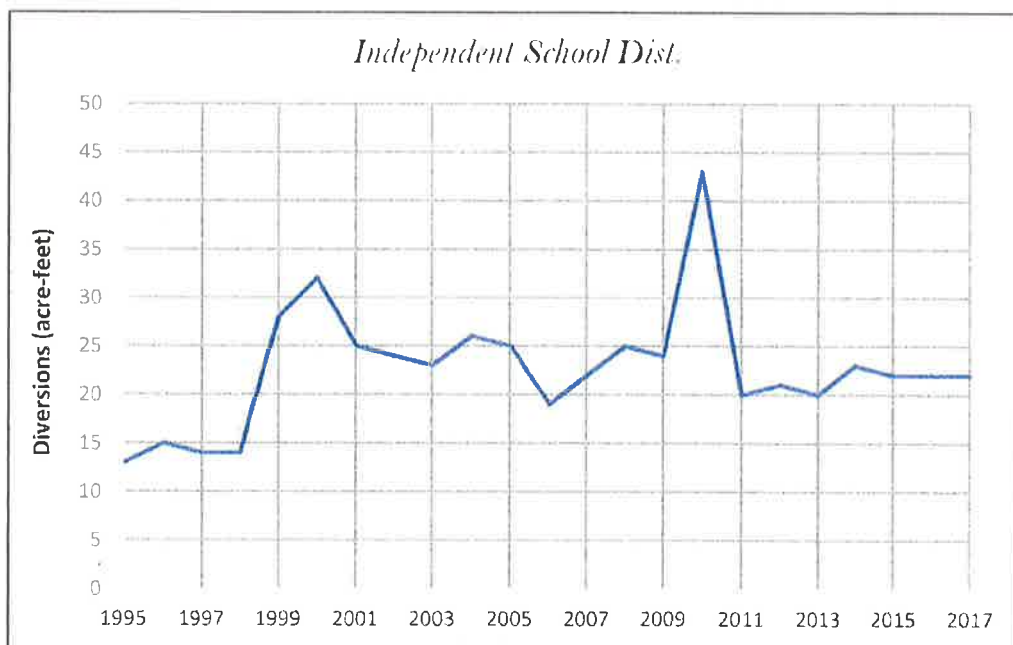
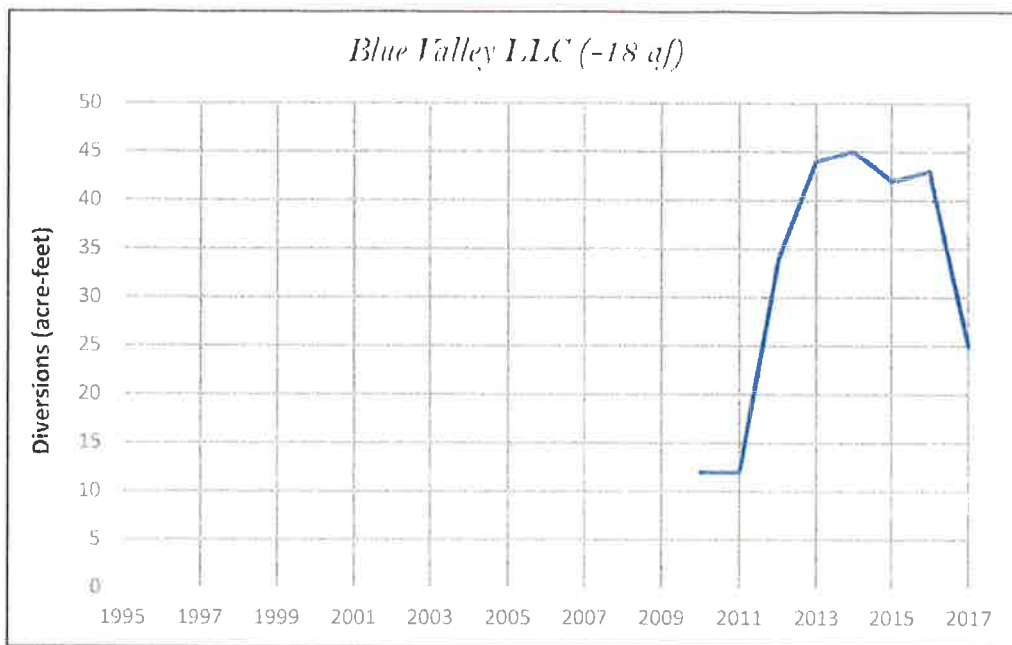
*\* Micron net change from 2016 = +351 acre-feet*

**Annual Diversion Reporting for the Southeast Boise GWMA**  
**Calendar Year 2017 Diversions**





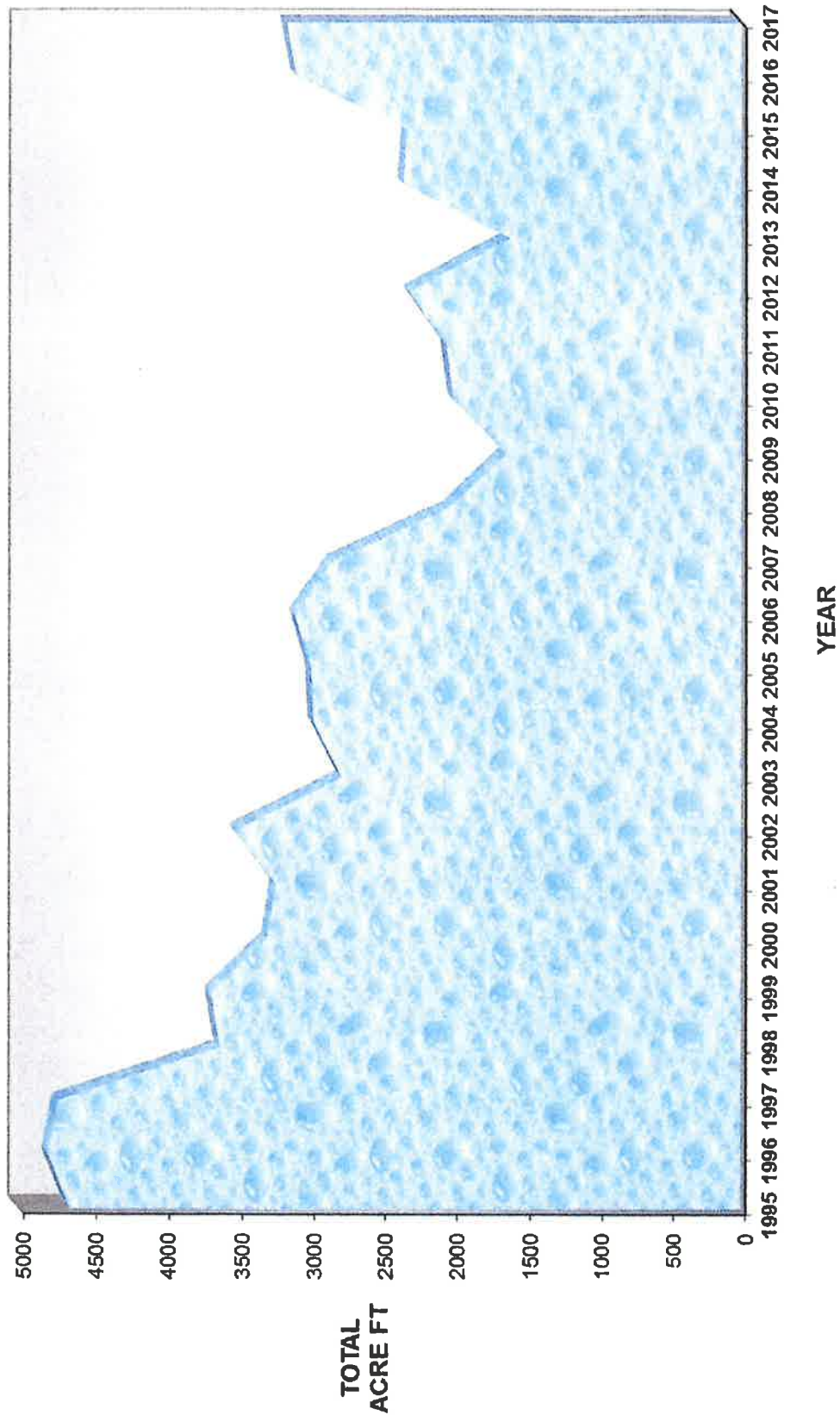
**Annual Diversion Reporting for the Southeast Boise GWMA**  
**Calendar Year 2017 Diversions**



*\* 2017 reporting information for the Independent School District has not been submitted.*

Annual Diversion Reporting for the Southeast Boise GWMA  
Calendar Year 2017 Diversions

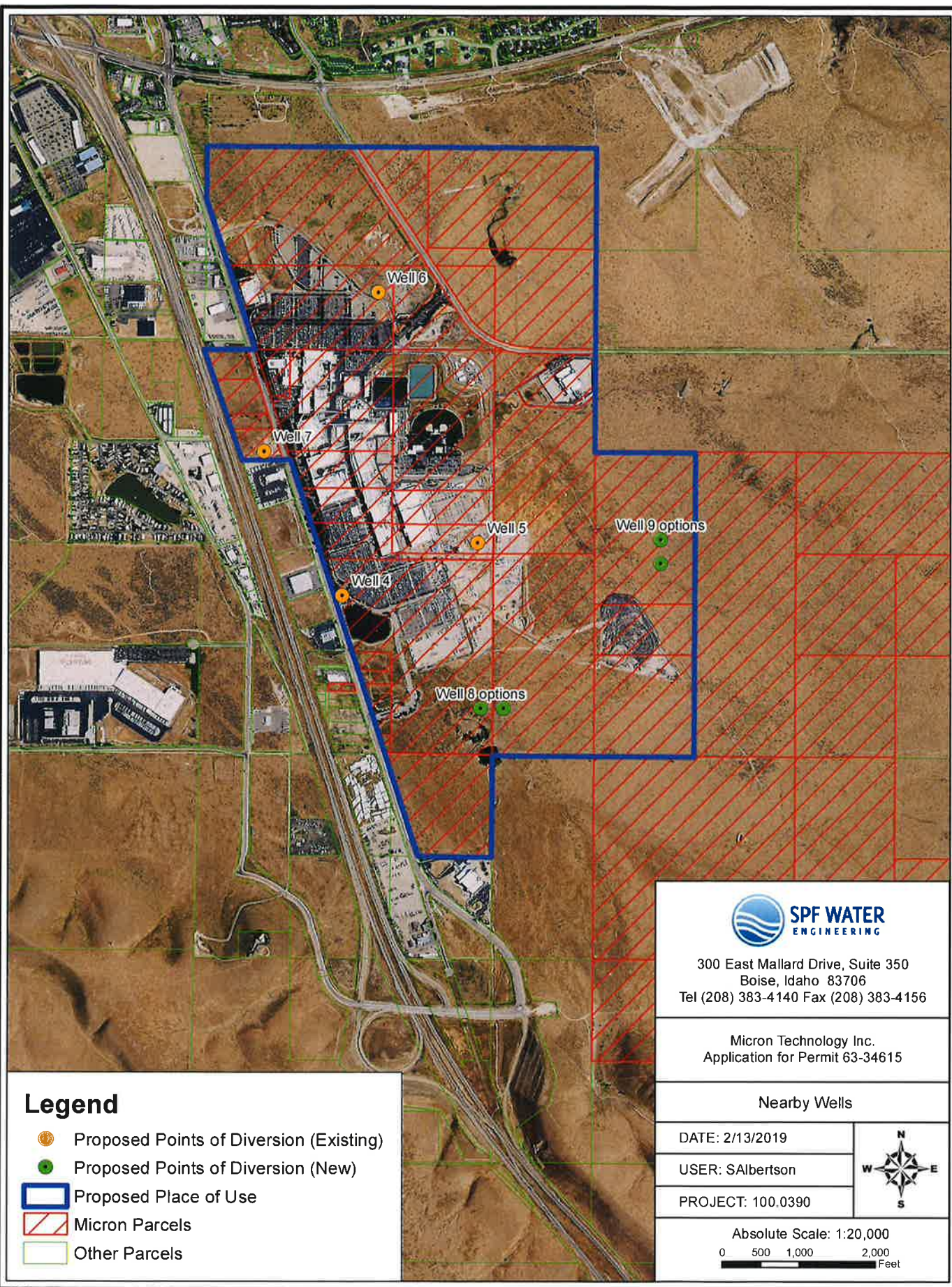
SE BOISE GWMA ANNUAL WATER MEASUREMENT REPORTING



**Attachment C**  
**POD and POU Ownership Map**



Path: S:\PROJECTS\W thru R\Projects\Micron\_1000390 Water Right Consulting Services\PROJECT\GIS\Map\Projects\63-34615 nearby wells.mxd



COORDINATE REFERENCE SYSTEM: NAD 1983 2011 StatePlane Idaho West FIPS 1103 Ft US

**Attachment D**  
**Request for Comment Letters**





February 5, 2019

City of Boise, Public Works Department  
Attn: John Roldan, Strategic Water Resources Manager  
PO Box 500  
Boise, ID 83701-0500

Re: Applications for Permit No. 63-34614 and 63-34615 - Micron Technology, Inc.

Dear John,

Micron Technology, Inc. (Micron) proposes to appropriate 12 cfs of flood water from the Boise River for industrial and groundwater recharge purposes as described by attached application for permit 63-34614. The 12 cfs diversion rate is intended to supplement the rate and volume available under existing Micron Boise River water rights, including floodwater license 63-12420 and Nampa & Meridian Irrigation District water rights 63-199B and 63-200B.

Micron also proposes to appropriate 10 cfs of groundwater for industrial purposes. Water diverted under this proposed permit will consist of recharged groundwater in excess of that allowed for diversion under existing Micron license 63-31183.

Idaho Department of Water Resources Water Appropriation Rules (IDAPA 37.03.08, 40.05.g) require applicants to seek letters of comment on the effects of the construction and operation of projects proposed by certain water right applications.

Please provide comments concerning the above referenced applications to:

Nick Miller, P.E.  
Idaho Department of Water Resources  
Western Regional Office  
2735 Airport Way  
Boise, ID. 83705-5082

If you have any questions regarding these applications, please do not hesitate to call me at 208-383-4140. SPF Water Engineering would appreciate a copy of your response be sent to us at the address listed in the footer below. Thank you for your consideration of this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "Terry M. Scanlan", is written over a horizontal line.

Terry M. Scanlan, P.E., P.G.  
Principal Engineer/Hydrogeologist



**SPF WATER**  
ENGINEERING

---

February 5, 2019

Darren Coon, Secretary  
Nampa & Meridian Irrigation District  
1503 First Street South  
Nampa, ID 83651

Re: Applications for Permit No. 63-34614 and 63-34615 - Micron Technology, Inc.

Dear Darren,

Micron Technology, Inc. (Micron) proposes to appropriate 12 cfs of flood water from the Boise River for industrial and groundwater recharge purposes as described by attached application for permit 63-34614. The 12 cfs diversion rate is intended to supplement the rate and volume available under existing Micron Boise River water rights, including floodwater license 63-12420 and Nampa & Meridian Irrigation District water rights 63-199B and 63-200B.

Micron also proposes to appropriate 10 cfs of groundwater for industrial purposes. Water diverted under this proposed permit will consist of recharged groundwater in excess of that allowed for diversion under existing Micron license 63-31183.

Idaho Department of Water Resources Water Appropriation Rules (IDAPA 37.03.08, 40.05.g) require applicants to seek letters of comment on the effects of the construction and operation of projects proposed by certain water right applications.

Please provide comments to:

Nick Miller, P.E.  
Idaho Department of Water Resources  
Western Regional Office  
2735 Airport Way  
Boise, ID. 83705-5082

If you have any questions regarding these applications, please do not hesitate to call me at 208-383-4140. SPF Water Engineering would appreciate a copy of your response be sent to us at the address listed in the footer below. Thank you for your consideration of this matter.

Sincerely,

Terry M. Scanlan, P.E., P.G.  
Principal Engineer/Hydrogeologist



February 5, 2019

Idaho Department of Fish & Game  
South West Region Office  
Attn: Brad Compton, Supervisor  
3101 S. Powerline Rd  
Nampa, ID 83686

Re: Applications for Permit No. 63-34614 and 63-34615 - Micron Technology, Inc.

Dear Mr. Compton,

Micron Technology, Inc. (Micron) proposes to appropriate 12 cfs of flood water from the Boise River for industrial and groundwater recharge purposes as described by attached application for permit 63-34614. The 12 cfs diversion rate is intended to supplement the rate and volume available under existing Micron Boise River water rights, including floodwater license 63-12420 and Nampa & Meridian Irrigation District water rights 63-199B and 63-200B.

Micron also proposes to appropriate 10 cfs of groundwater for industrial purposes. Water diverted under this proposed permit will consist of recharged groundwater in excess of that allowed for diversion under existing Micron license 63-31183.

Idaho Department of Water Resources Water Appropriation Rules (IDAPA 37.03.08, 40.05.g) require applicants to seek letters of comment on the effects of the construction and operation of projects proposed by certain water right applications.

Please provide comments concerning the above referenced applications to:

Nick Miller, P.E.  
Idaho Department of Water Resources  
Western Regional Office  
2735 Airport Way  
Boise, ID. 83705-5082

If you have any questions regarding these applications, please do not hesitate to call me at 208-383-4140. SPF Water Engineering would appreciate a copy of your response be sent to us at the address listed in the footer below. Thank you for your consideration of this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "Terry M. Scanlan", is written over a horizontal line.

Terry M. Scanlan, P.E., P.G.  
Principal Engineer/Hydrogeologist



February 5, 2019

Idaho Department of Environmental Quality  
Boise Regional Office  
Attn: Danie Merriman, Water Quality Analyst  
1445 N. Orchard  
Boise, ID 83706

Re: Applications for Permit No. 63-34614 and 63-34615 - Micron Technology, Inc.

Dear Danie,

Micron Technology, Inc. (Micron) proposes to appropriate 12 cfs of flood water from the Boise River for industrial and groundwater recharge purposes as described by attached application for permit 63-34614. The 12 cfs diversion rate is intended to supplement the rate and volume available under existing Micron Boise River water rights, including floodwater license 63-12420 and Nampa & Meridian Irrigation District water rights 63-199B and 63-200B.

Micron also proposes to appropriate 10 cfs of groundwater for industrial purposes. Water diverted under this proposed permit will consist of recharged groundwater in excess of that allowed for diversion under existing Micron license 63-31183.

Idaho Department of Water Resources Water Appropriation Rules (IDAPA 37.03.08, 40.05.g) require applicants to seek letters of comment on the effects of the construction and operation of projects proposed by certain water right applications.

Please provide comments concerning the above referenced applications to:

Nick Miller, P.E.  
Idaho Department of Water Resources  
Western Regional Office  
2735 Airport Way  
Boise, ID. 83705-5082

If you have any questions regarding these applications, please do not hesitate to call me at 208-383-4140. SPF Water Engineering would appreciate a copy of your response be sent to us at the address listed in the footer below. Thank you for your consideration of this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "Terry M. Scanlan", is written over a horizontal line.

Terry M. Scanlan, P.E., P.G.  
Principal Engineer/Hydrogeologist

Enclosures: Applications for Permit No. 63-34614 and 63-34615

cc: Nick Miller – Idaho Department of Water Resources  
Ann Dickey – Micron Technology

SPF Job No.: 100.0390





State of Idaho

DEPARTMENT OF WATER RESOURCES

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

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Website: [www.idwr.idaho.gov](http://www.idwr.idaho.gov)

BRAD LITTLE  
Governor

GARY SPACKMAN  
Director

February 1, 2019

BOISE PROJECT BOARD OF CONTROL  
2465 OVERLAND RD  
BOISE ID 83705

**Re: Application for Permit Nos. 63-34614 & 63-34615**

Dear Interested Party:

The above referenced application may be of interest to you. I would like to inform you that the application has been submitted to the *Idaho Statesman* for advertising. I have enclosed a copy of the application for your convenience. This information is also available on our website [www.idwr.idaho.gov](http://www.idwr.idaho.gov).

If you desire to file a formal protest against approval of the application, a written protest along with the \$25.00 protest fee must be received in this office by **February 25, 2019**. A copy of the protest must also be sent to the applicant.

If you have any questions regarding the application, please contact this office at 208-334-2190.

Sincerely,

Anna Kaiser  
Administrative Assistant  
Western Regional Office

Enclosures

## Kaiser, Anna

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**From:** Kaiser, Anna  
**Sent:** Friday, February 1, 2019 9:19 AM  
**To:** 'adickey@micron.com'  
**Subject:** Applications for Permits 63-34614 & 63-34615  
**Attachments:** Agency Recommendation Form.docx; WR 63-34614.pdf; WR 63-34615.pdf

ANNE DICKEY  
SE BOISE COMMITTEE

### **Application for Permit Nos.63-34614 & 63-34615**

Dear Ms. Dickey:

The Idaho Department of Water Resources (IDWR) is seeking written comment and/or recommendation(s) from your agency regarding the above referenced water right application(s). Copy(s) of the application(s) are enclosed with this email for your reference. Please review the application(s), complete the enclosed recommendation form, and submit your reply, if any, to this office by the protest deadline of **February 25, 2019**.

If your agency desires to formally protest approval of this application, you may do so by filing a written protest along with a \$25.00 filing fee for each protested application by the protest deadline.

IDWR will assume your agency does not object to this application if a timely response is not received. Please contact me if you have any questions regarding the application. Thank you for your help.

Sincerely,

**Anna Kaiser** | Administrative Assistant I  
IDWR-Western Region  
2735 W Airport Way, Boise ID 83705  
(208).334.2190 | [anna.kaiser@idwr.idaho.gov](mailto:anna.kaiser@idwr.idaho.gov)

**Kaiser, Anna**

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**From:** Kaiser, Anna  
**Sent:** Friday, February 1, 2019 9:18 AM  
**To:** 'chas@mcdevitt.org'  
**Subject:** Applications for Permits 63-34614 & 63-34615  
**Attachments:** Agency Recommendation Form.docx; WR 63-34614.pdf; WR 63-34615.pdf

CHAS MCDEVITT  
SE BOISE COMMITTEE

**Application for Permit Nos.63-34614 & 63-34615**

Dear Mr. McDevitt:

The Idaho Department of Water Resources (IDWR) is seeking written comment and/or recommendation(s) from your agency regarding the above referenced water right application(s). Copy(s) of the application(s) are enclosed with this email for your reference. Please review the application(s), complete the enclosed recommendation form, and submit your reply, if any, to this office by the protest deadline of **February 25, 2019**.

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IDWR will assume your agency does not object to this application if a timely response is not received. Please contact me if you have any questions regarding the application. Thank you for your help.

Sincerely,

**Anna Kaiser** | Administrative Assistant I  
IDWR-Western Region  
2735 W Airport Way, Boise ID 83705  
(208).334.2190 | [anna.kaiser@idwr.idaho.gov](mailto:anna.kaiser@idwr.idaho.gov)

## Kaiser, Anna

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**From:** Kaiser, Anna  
**Sent:** Friday, February 1, 2019 9:17 AM  
**To:** 'ed@hydrologicinc.net'  
**Subject:** Applications for Permits 63-34614 & 63-34615  
**Attachments:** Agency Recommendation Form.docx; WR 63-34614.pdf; WR 63-34615.pdf

ED SQUIRES  
SE BOISE COMMITTEE

### Application for Permit Nos.63-34614 & 63-34615

Dear Mr. Squires:

The Idaho Department of Water Resources (IDWR) is seeking written comment and/or recommendation(s) from your agency regarding the above referenced water right application(s). Copy(s) of the application(s) are enclosed with this email for your reference. Please review the application(s), complete the enclosed recommendation form, and submit your reply, if any, to this office by the protest deadline of **February 25, 2019**.

If your agency desires to formally protest approval of this application, you may do so by filing a written protest along with a \$25.00 filing fee for each protested application by the protest deadline.

IDWR will assume your agency does not object to this application if a timely response is not received. Please contact me if you have any questions regarding the application. Thank you for your help.

Sincerely,

**Anna Kaiser** | Administrative Assistant I  
IDWR-Western Region  
2735 W Airport Way, Boise ID 83705  
(208).334.2190 | [anna.kaiser@idwr.idaho.gov](mailto:anna.kaiser@idwr.idaho.gov)

**Kaiser, Anna**

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**From:** Kaiser, Anna  
**Sent:** Friday, February 1, 2019 9:16 AM  
**To:** 'roger.dittus@suez-na.com'  
**Subject:** Applications for Permits 63-34614 & 63-34615  
**Attachments:** Agency Recommendation Form.docx; WR 63-34614.pdf; WR 63-34615.pdf

February 1, 2019

ROGER DITTUS  
SE BOISE COMMITTEE  
SUEZ

**Application for Permit Nos.63-34614 & 63-34615**

Dear Mr. DITTUS:

The Idaho Department of Water Resources (IDWR) is seeking written comment and/or recommendation(s) from your agency regarding the above referenced water right application(s). Copy(s) of the application(s) are enclosed with this email for your reference. Please review the application(s), complete the enclosed recommendation form, and submit your reply, if any, to this office by the protest deadline of **February 25, 2019**.

If your agency desires to formally protest approval of this application, you may do so by filing a written protest along with a \$25.00 filing fee for each protested application by the protest deadline.

IDWR will assume your agency does not object to this application if a timely response is not received. Please contact me if you have any questions regarding the application. Thank you for your help.

Sincerely,

**Anna Kaiser** | Administrative Assistant I  
IDWR-Western Region  
2735 W Airport Way, Boise ID 83705  
(208).334.2190 | [anna.kaiser@idwr.idaho.gov](mailto:anna.kaiser@idwr.idaho.gov)



**Kaiser, Anna**

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**From:** Kaiser, Anna  
**Sent:** Friday, February 1, 2019 9:15 AM  
**To:** 'vic.conrad@simplot.com'  
**Subject:** Applications for Permits 63-34614 & 63-34615  
**Attachments:** Agency Recommendation Form.docx; WR 63-34614.pdf; WR 63-34615.pdf

February 1, 2019

VIC CONRAD  
SE BOISE COMMITTEE  
SIMPLOT

**Application for Permit Nos.63-34614 & 63-34615**

Dear Mr. Fischer:

The Idaho Department of Water Resources (IDWR) is seeking written comment and/or recommendation(s) from your agency regarding the above referenced water right application(s). Copy(s) of the application(s) are enclosed with this email for your reference. Please review the application(s), complete the enclosed recommendation form, and submit your reply, if any, to this office by the protest deadline of **February 25, 2019**.

If your agency desires to formally protest approval of this application, you may do so by filing a written protest along with a \$25.00 filing fee for each protested application by the protest deadline.

IDWR will assume your agency does not object to this application if a timely response is not received. Please contact me if you have any questions regarding the application. Thank you for your help.

Sincerely,

**Anna Kaiser | Administrative Assistant I**  
IDWR-Western Region  
2735 W Airport Way, Boise ID 83705  
(208).334.2190 | [anna.kaiser@idwr.idaho.gov](mailto:anna.kaiser@idwr.idaho.gov)

## Kaiser, Anna

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**From:** Kaiser, Anna  
**Sent:** Friday, February 1, 2019 9:14 AM  
**To:** Fischer, Nate  
**Subject:** Applications for Permits 63-34614 & 63-34615  
**Attachments:** Agency Recommendation Form.docx; WR 63-34614.pdf; WR 63-34615.pdf

February 1, 2019

NATE FISCHER  
SE BOISE COMMITTEE  
IDWR

### Application for Permit Nos.63-34614 & 63-34615

Dear Mr. Fischer:

The Idaho Department of Water Resources (IDWR) is seeking written comment and/or recommendation(s) from your agency regarding the above referenced water right application(s). Copy(s) of the application(s) are enclosed with this email for your reference. Please review the application(s), complete the enclosed recommendation form, and submit your reply, if any, to this office by the protest deadline of **February 25, 2019**.

If your agency desires to formally protest approval of this application, you may do so by filing a written protest along with a \$25.00 filing fee for each protested application by the protest deadline.

IDWR will assume your agency does not object to this application if a timely response is not received. Please contact me if you have any questions regarding the application. Thank you for your help.

Sincerely,

**Anna Kaiser** | Administrative Assistant I  
IDWR-Western Region  
2735 W Airport Way, Boise ID 83705  
(208).334.2190 | [anna.kaiser@idwr.idaho.gov](mailto:anna.kaiser@idwr.idaho.gov)

**Miller, Nick**

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**From:** Ann Dickey (adickey) <adickey@micron.com>  
**Sent:** Friday, September 14, 2018 8:48 AM  
**To:** smd@idahowaters.com; Barker, Albert (IWRB Member); bryce@sawtoothlaw.com; mkellner@idahoconservation.org; jks@idahowaters.com; Abigail Germaine; Dittus, Roger; Michael P. Lawrence; Conrad, Vic; ed@hydrologicinc.net; Chas McDevitt; Terry Scanlan; Catherine Chertudi; Miller, Nick; LKThorn1@aol.com; John Roldan; Brandon Crane (bcrane); kjbeaton@stoel.com  
**Subject:** Notice of Application for Permits - Micron Technology, Inc.  
**Attachments:** Recovery Permit Application PN.pdf; Recharge Permit App PN.pdf; Transfer Application PN.pdf

### **Notice of Application for Permits – Micron Technology, Inc.**

Dear Interested Party,

To meet our water needs for future growth and development, Micron Technology, Inc. (Micron) has submitted three permit applications to the Idaho Department of Water Resources (IDWR). The applications collectively request an increase to our integrated water system of diverting Boise River water for aquifer recharge and recovery utilizing the same proven technology Micron has employed since 2001. The applications are summarized as follows:

1. **Recharge Permit Application** proposes diversion of 12 cfs of Boise River flood water for industrial and ground water recharge use in addition to the amounts currently authorized under water right 63-12420.
2. **Recovery Permit Application** proposes 10 cfs of out-of-priority recharged groundwater diversions in addition to amounts authorized under water right 63-31183. Water proposed for diversion will be fully mitigated since it will be recovered Boise River water authorized for ground water recharge using storage water (BOR contract) and natural flow (Nampa & Meridian Irrigation District decrees 63-1998 and 63-2008 and Micron license 63-12420) and the floodwater right proposed under the recharge permit application submitted concurrently.
3. **Permit Transfer Application** addresses multiple administrative changes to rights 63-8992, 63-9029, 63-9357, 63-10208, 63-11283, 63-12420 and 63-31183.
  - Common place of use for listed water rights to reflect an integrated system
  - Updated points of use to eliminate two abandoned wells (Gowen and Oregon Trail)
  - Reflect four current wells (Wells 4, 5, 6 and 7) and two proposed wells (Wells 8 and 9)

Micron anticipates interest in the recharge application from Boise River irrigation entities concerned about refill of storage space after storage water has been released. Micron is willing to offer subordination to refill of existing storage space in Arrowrock, Lucky Peak, and Anderson reservoirs.

Micron anticipates that IDWR will apply Standard Condition Codes 907 and 908 similarly to the conditions stipulated in our existing water right 63-12420.

Water right 63-12420, Condition No. 5 (Standard Condition Code 907)

*If measured or calculated Boise River flows at the point of diversion are less than 240 cfs during the period beginning June 16 and ending February 29, water shall not be diverted pursuant to this right. If measured or*

*calculated Boise River flows at the point of diversion are less than 1,100 cfs during the period beginning March 1 and ending May 31, water shall not be diverted pursuant to this water right. Measured or calculated Boise River flows at the point of diversion shall be based on gauged Lucky Peak Dam discharge minus the gauged diversion of the New York Canal.*

**Water right 63-12420, Condition No. 8 (Standard Condition Code 908)**

*The right holder shall exercise this right only when authorized by the District 63 watermaster when the Boise River is on flood release below Lucky Peak dam/outlet. Flood releases shall be determined based upon the Memorandum of Agreement between the Department of Army and the Department of Interior for Flood Control Operations of Boise River Reservoirs, dated November 20, 1953, contracts with Reclamation contract holders in the Boise River Reservoirs, the Water Control Manual for Boise River Reservoirs, dated April 1985, and any modifications adopted pursuant to the procedures required in these documents and federal laws. The right holder shall not seek, directly or indirectly, any change to the flood control operations of the 1985 Water Control Manual for Boise River reservoirs. This water right may not be used to divert water released from storage to augment lower Snake River flows during the migration of Snake River salmon as authorized under Idaho law, or for any purpose of use authorized under the water rights for Lucky Peak Reservoir.*

The activities proposed in this application package reflect Micron's continued commitment to excellence in water resource stewardship including:

- Aquifer management and recharge efforts intended to stabilize regional groundwater levels
- Participation on the Advisory Board of the Southeast Boise Groundwater Management Area and support of their regional groundwater management and protection strategies.

If you have questions or concerns, please contact:

Ann Dickey, Micron Environmental Compliance Manager, at 208-363-2152

Terry Scanlan, SPF Principal Engineer/Hydrogeologist, at 208-383-4140

Distribution:

Southeast Boise Groundwater Management Area Advisory Board  
Abigail Germaine, Esq., City of Boise  
Michael P. Lawrence, Esq.  
S. Bryce Farris, Esq.  
Shelley M. Davis, Esq.  
John K. Simpson, Esq.  
Albert P. Barker, Esq.  
Marie Callaway Kellner, Esq.  
Lavar Thornton  
Kevin J. Beaton, Esq.  
Brandon Crane, Esq.  
Idaho Department of Water Resources  
Terry Scanlan



**Ann Dickey, PE**  
**Environmental Compliance Manager**  
**Micron Technology, Inc.**  
(208) 363-2152 office  
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