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Attorneys for Applicant SUEZ Water Idaho Inc.

BEFORE THE IDAHO DEPARTMENT OF WATER RESOURCES

IN THE MATTER OF APPLICATION FOR TRANSFER NO. 82161 IN THE NAME OF SUEZ WATER IDAHO INC. SUEZ'S DISCLOSURE OF EXPERT WITNESSES AND REPORTS

SUEZ Water Idaho Inc. ("SUEZ"), by and through its counsel of record, Givens Pursley

LLP, and pursuant to the Director's June 30, 2021 Notice of Amended Scheduling Order, hereby

discloses the following expert witnesses who may testify at hearing in the above-captioned

matter:

- Terry Scanlan, P.E., P.G. SPF Water Engineering, LLC 300 E. Mallard Dr., Suite 350 Boise, ID 83706
- Cathy Cooper, P.E. Director of Engineering SUEZ Water Idaho Inc. 8248 W. Victory Rd. Boise, ID 83709

Mr. Scanlan's curriculum vitae is attached hereto as Appendix A.

Page 1 of 5



Ms. Cooper is a graduate of the University of Colorado at Boulder with a Bachelor of Science in Civil Engineering. She completed her Master of Science in Civil Engineering at the University of Washington in Seattle. She has been a licensed Professional Engineer in the State of Idaho since 1999. She has been employed as a civil engineer for 28 years. Her work experience includes 22 years at Boise area consulting firms where she focused on water system engineering. Her experience includes preparing detailed hydraulic calculations; designs for storage tanks, pump stations, pressure reducing stations, pipelines, and well houses; water system Master Facility Plans; hydraulic models; water rights work; and project cost estimates. She was an Owner and the Managing Partner at her last consulting firm. She has been employed by SUEZ since July 2016 as the Director of Engineering in Idaho.

Mr. Scanlan's statements of opinions to be expressed and the basis and reasons for those opinions are contained in the memorandum attached hereto as <u>Appendix B</u> regarding "Expert Report for Transfer No. 82161 (63-123F)" dated July 28, 2021. Mr. Scanlan may testify to any other factual or technical issues concerning or relevant to Application for Transfer No. 82161 raised by the Idaho Department of Water Resources or any other party or witness.

Ms. Cooper's statements of opinions to be expressed and the basis and reasons for those opinions are contained in the memorandum attached hereto as <u>Appendix C</u> on the subject of "Lexington Hills Water Right Transfer – Irrigated Area Calculation Methodology" dated September 4, 2019 (a copy of which was submitted into the record in this proceeding as an attachment to a September 12, 2021 letter from Michael P. Lawrence to Nick Miller). Ms. Cooper may testify to any other factual or technical issues concerning or relevant to Application for Transfer No. 82161 raised by the Idaho Department of Water Resources or any other party or witness.

The data and other information considered by Mr. Scanlan and Ms. Cooper are contained in or referenced in their respective expert reports and/or are readily available to the Department. Mr. Scanlan and Ms. Cooper may be called to testify as to other matters that may be discovered prior to or at the hearing.

Exhibits that may be used as a summary of or support for the opinions will be served in accordance with the Director's June 30, 2021 *Notice of Amended Scheduling Order*.

Neither Mr. Scanlan nor Ms. Cooper have authored any publications in the past ten years.

Mr. Scanlan is compensated at an hourly rate of \$185 for his testimony in this matter.

Ms. Cooper is an employee of SUEZ and is receiving no compensation in addition to her regular salary for her testimony in this matter.

Mr. Scanlan has not testified as an expert in any court trials in the last four years, but has testified as an expert in administrative hearings regarding 63-34348 (Elmore County), Transfer 80342 (Casa Del Norte), 63-34079 and 63-34080 (Emmert). Mr. Scanlan has also provided expert deposition testimony concerning 63-34348 (Elmore County), Transfer 81800 (Casa Del Norte).

Ms. Cooper has not testified in any court trials in the last four years, but has provided testimony in the following administrative hearings before the Idaho Public Utilities Commission:

 (1) SUZ-W-20-02, In the Matter of the Application of SUEZ Water Idaho Inc. for Authority to Increase its Rates and Charges for Water Service in the State of Idaho;
 (2) SUZ-W-18-02/EAG-W-18-01, In the Matter of the Joint Application of SUEZ Water Idaho and Eagle Water Company for the Acquisition of Eagle Water Company; and
 (3) SUZ-W-21-02, In the Matter of the Application of SUEZ Water Idaho Inc. for

Amendment of Certificate of Public Convenience and Necessity.

SUEZ reserves the right to amend or supplement this disclosure as discovery progresses, and to present additional expert witnesses and/or testimony at the hearing as rebuttal or otherwise. SUEZ also reserves the right to not call any of the persons listed above and to restrict or limit the scope of the witness's testimony in the event any of the above-listed persons are called to testify.

By

Respectfully submitted this 28th day of July, 2021.

GIVENS PURSLEY LLP

Michael P. Lawrence

Attorneys for Applicant SUEZ Water Idaho Inc.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 28th day of July, 2021, the foregoing, together with any appendices or exhibits, was filed, served, and copied as shown below.

DOCUMENT FILED:

Idaho Department of Water Resources IDAHO WATER CENTER 322 E Front St., Suite 648 Boise, Idaho 83702-7371 U.S. Mail, postage prepaid Express Mail Hand Delivery Facsimile

DOCUMENT SERVED:

John M. Marshall John Marshall Law PLLC 575 W Bannock St. Boise, Idaho 83702 Email: john@jmarshalllaw.com

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Michael P. Lawrence

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Appendix A TERRY SCANLAN'S CURRICULUM VITAE

Terry M. Scanlan, P.E., P.G.





Education

M.S., Geological Engineering, University of Idaho, 1986

B.S., Geological Engineering, University of Idaho, 1983

Professional Certification

Professional Engineer Idaho No. 6266, 1990 Nevada No. 22016, 2012

Professional Geologist Idaho No. 646, 1989 Oregon No. G1311, 1992

Certified Water Right Examiner Idaho No. 129

Areas of Expertise

- Groundwater development studies
- Water rights
- Design, installation, and testing of highcapacity wells for irrigation, municipal, and industrial water supply

Experience Summary

Mr. Scanlan has over 30 years of professional experience in water supply consulting as an engineer and hydrogeologist. He has particular expertise in water rights, well and pumping system design, public drinking water systems, irrigation, and other water resource matters. Mr. Scanlan also has experience in geothermal resource development, mining-related environmental studies, dewatering, soils investigations, geologic mapping, and wastewater land application projects. He has served as Chairman of the Idaho Board of Registration for Professional Geologists. Mr. Scanlan is a Certified Water Right Examiner in Idaho.

SPF Water Engineering – 2004 to present

Mr. Scanlan is a Principal Engineer and Hydrogeologist with SPF Water Engineering, LLC. SPF Water Engineering, LLC, was formed from Scanlan Engineering in March 2004 to provide a wider range of water resource engineering services.

Scanlan Engineering-1994 to 2004

Mr. Scanlan formed Scanlan Engineering in 1994 to provide engineering and hydrogeologic consulting to public and private clients. Scanlan Engineering provided water resource consulting services to more than 300 clients, primarily in southwest Idaho. Mr. Scanlan also served as a subconsultant on water supply projects for numerous engineering firms in Idaho.

Montgomery Watson-1986 to 1993

Prior to forming Scanlan Engineering in 1994, Mr. Scanlan worked as a supervising hydrogeologist for Montgomery Watson (MWH) in Boise, Idaho. He managed and conducted ground-water development projects and hydrogeologic investigation throughout the western United States.

U.S. Geological Survey-1984 to 1986

Mr. Scanlan was employed by the U.S. Geological Survey as a field assistant in the geologic division prior to joining Montgomery Watson in 1986. Responsibilities included geologic mapping, landslide hazard evaluation, and mineral potential studies. Mr. Scanlan worked on the Challis and Hailey 2° Quadrangle CUSMAP programs.

Relevant Water Supply Project Experience

Industrial Water Supply Wells. Design, construction monitoring, and testing of four 1,000- to 1,200-foot, highcapacity, industrial water supply wells and pump systems for Micron Technology in Boise, Idaho. Construction of supply wells for Sorrento Lactalis in Nampa, Idaho, CTI Foods in Wilder,

Terry M. Scanlan, P.E., P.G.

Idaho, Champion Homes in Weiser, Idaho, Tamarack Energy in Tamarack, Idaho, and CS Beef Packers in Nampa, Idaho.

- Public Drinking Water Wells. Design and testing for approximately 200 public drinking water supply wells. Clients include United Water Idaho, North Lake Recreational Sewer & Water District, the cities of Nampa, Boise, Meridian, Eagle, Middleton, Homedale, Greenleaf, Garden City, and Marsing, and numerous subdivisions, industries, churches, camps, and commercial facilities.
- Fish Hatchery Water Supply. Design, construction, testing, and equipping of two hatchery supply wells at the Sawtooth National Fish Hatchery. The work also included preparation of water right permit and transfer applications, and completion of a water right beneficial use field examination that resulted in licensing of an additional water right for the facility. Design, construction, and testing of three hatchery water supply and one domestic water supply wells at the Idaho Dept. of Fish and Game Springfield Hatchery. The work also included equipping of seven wells, aquifer testing, and water right permitting. Groundwater supply investigation, well rehabilitation, and pump design at the Idaho Power Company Upper Pahsimeroi Fish Hatchery near May, Idaho. Groundwater supply and water right investigation to support water supply improvements for the Lahontan National Fish Hatchery near Gardnerville, Nevada. Test well and production well construction for the Mason Valley Fish Hatchery near Yerington, Nevada.
- Heating and Cooling Well Systems. Design, construction monitoring, and testing of production and injection well systems for heating and cooling purposes at Idaho Water Center (Boise), Whitney Elementary School (Boise), and the Oregon National Guard Ontario Readiness Center.
- Aquifer Storage and Recovery (ASR). Lead consultant to Micron Technology for the Boise River water supply and aquifer recharge project, including water rights, a nominal 25,000 gpm Boise River pump station, 3 miles of 24-inch and 30-inch pipeline, an ultra-filtration membrane water treatment system, and a nominal 4 MGD injection well. Mr. Scanlan has provided design and permitting for ASR at Capitol Water Corporation Well No. 6.
- **Park Irrigation.** Mr. Scanlan has been responsible for design and construction of more than 30 new well and surface water pumping systems at municipal parks in Boise, Idaho. He provides annual evaluations of nearly 100 well and surface-water pump systems for the Boise Park Department.
- **Pressurized Irrigation.** Efficiency and operation evaluation of the City of Nampa pressurized irrigation system, which includes 92 pump stations and wells. Trouble-shooting and water-right evaluation for Harris Ranch Subdivision, Mallard Landing Subdivision, and Surprise Valley Subdivision. Usage monitoring at Surprise Valley Subdivision. Design and construction of pump stations and wells, including CenterCal and Meridian CrossRoads shopping centers, Boise LDS Temple, and numerous private subdivision systems.
- **Municipal Drinking Water Well Pumps.** Design, permitting, and construction inspection of well pump systems and well houses for Capitol Water Corporation in Boise, Idaho.
- Aquarium Water Supply. Design, construction, and testing of salt water production wells for large-scale aquarium projects in Guam and Taiwan.
- Ski-Area Water Supply. Evaluation of ground water potential for snowmaking or potable supplies at Sun Valley, Brundage, and Bogus Basin ski areas. Design and testing of the water supply well for the snowmaking system at Sun Valley. Exploration drilling at Brundage Mountain.
- Infiltration Galleries. Evaluation and testing of infiltration galleries and Ranney Collectors at Sequim, Washington (horizontal gallery, Dungeness River), Irrigon, Oregon (four Ranney Collectors, Columbia River), Boise, Idaho (three Ranney Collectors, Boise River), and Modesto, California (Tuolune River, horizontal gallery).
- **Mining Water Supply.** Design of the domestic supply, mine-pit dewatering, and industrial supply wells for the Beartrack mining project at Leesburg, Idaho.
- **Agricultural Water Supply.** Water master planning for the 3600-acre City of Boise Twenty Mile South Farm, that included reconfiguration of water rights, development of additional irrigated lands, design of two large-capacity irrigation wells, design of a 500-hp and 400-hp variable speed deep well turbine pump systems, and efficiency evaluations of 12 irrigation wells. Piping, pump, and well evaluations for pressurized irrigation systems serving farms in Idaho, Oregon, and California. Pump design for dozens of irrigation systems



Terry M. Scanlan, P.E., P.G.

throughout southern Idaho.

- Groundwater Exploration. Construction and testing of ten water-supply exploration wells for SunCor in northern Ada County, Idaho. Multi-level water quality exploration wells for the cities of Meridian and Nampa. Blaine County airport water supply study exploration well. Crater Lake National Park water supply exploration well.
- Energy Water Supply. Water supply studies for proposed nuclear power plants for Mid-American Nuclear Energy and Alternate Energy Holdings, including conceptual water supply design, water rights, consulting, and baseline environmental studies.
- **Regional Water Supply.** Surface water and groundwater studies for the proposed Elmore-Ada Water Project in southwest, Idaho. Groundwater supply studies for the NAWS project in North Dakota. Water supply studies for Elmore County, including conceptual design and water-right permitting for pumping systems and pipelines extending to Mountain Home, Idaho, from the Snake River and from the South Fork Boise River.

Water Rights

- **Applications.** Preparation of hundreds of water right applications (transfers, amendments, permits, claims) for public and private clients in Idaho.
- **Beneficial Use Examinations.** Preparation of beneficial use examinations required for licensing of more than 100 water right permits. Work includes measurement of diversion rate, determination of place of use boundaries, documentations of diversion facilities, and recommendations for diversion rates, volumes, uses, and seasons based on state licensing criteria.
- **Hydrogeologic Studies.** Evaluation of surface water and ground water interactions, well interference, irrigation development, and consumptive water use related to water right transfers in the Boise Valley, Wood River Valley, Mud Lake, Magic Valley, Big Lost River, and Little Lost River areas of Idaho.
- **Springs.** Evaluation and measurement of flow from springs involved in water right disputes along the Snake River near Twin Falls and Hagerman, Idaho. Development of mitigation alternatives for spring-flow declines near Buhl, Idaho.
- Irrigation Rate Studies. Investigations related to Snake River Basin Adjudication claims, including calculation of irrigation requirements and seepage losses, measurement of irrigation diversion rates, and determination of historically irrigated areas.
- Master Plans. Water-right master plans for municipal and private clients, including cities of Nampa and Middleton.
- Expert Witness. Expert witness testimony regarding water use, well interference, and the interaction of surface water and ground water in administrative hearings and district court trials.
- Water Accounting. Evaluation of irrigation diversions, natural flow, return flow, and storage accounting on the Payette River system for the Payette Water Users Association.
- **Reserved Water Rights.** Evaluation of Federal and Tribal in-stream flow and spring claims in the Snake and Salmon River Basins.
- **Mitigation Plans.** Preparation of mitigation plans to allow ground water diversions for irrigation and industrial use in moratorium areas or ground water management areas in the Boise River basin and Eastern Snake River Plain.

Mining-Related Hydrogeology

- Malheur County, Oregon. Groundwater exploration and characterization studies for the proposed Grassy Mountain Mining project in Malheur County, Oregon. Geochemical characterization of waste materials at the proposed Kerby Mining project near Farewell Bend, Oregon. This project involved waste evaluation for to determine the potential for acid production and heavy metal mobilization. Mr. Scanlan also conducted baseline surface and groundwater quality evaluations for permitting.
- **Gibbonsville, Idaho.** Investigations related to water rights, stream alteration, and dewatering for Lemhi Gold Trust near Gibbonsville, Idaho.
- Alder, Montana. Groundwater flow characterization for the Garnet USA project near Alder, Montana.



Terry M. Scanlan, P.E., P.G.

- **Stibnite, Idaho.** Groundwater characterization and monitoring for various mining projects near Stibnite, Idaho since the late 1980s. Mr. Scanlan is currently serving as a groundwater consultant to Midas Gold for their Golden Meadows project.
- **DeLamar, Idaho.** A two-phase study of acid mine drainage from a 15 million ton waste dump at the DeLamar silver mine in southern Idaho. The first phase of the project was a hydrologic investigation of the waste dump, which characterized the modes of acid production and transport, within and outside of the dump. The second phase consisted of an evaluation of mitigation measures, and included the conceptual level design of a composite low-permeability cover.
- Lead, South Dakota. Groundwater characterization studies and permit preparation for three mine waste and spent ore disposal facilities at the Annie Creek Mine, near Lead, South Dakota. Two of these disposal facilities were located on mill tailings with high arsenic concentrations, and have required investigation of arsenic, nitrate, and cyanide attenuation mechanisms in saturated and unsaturated materials.
- **Sunbeam, Idaho.** Geochemical evaluation of waste materials as part of a supplemental EIS for the Grouse Creek mining project in central Idaho. This project also included groundwater characterization.
- Leesburg, Idaho. Water quality and streamflow monitoring program for the Beartrack Mine EIS. Design of the domestic supply, mine-pit dewatering, and industrial supply wells for the Beartrack mining project.
- Eureka, Nevada. Water supply investigations for Homestake Mining Company at Eureka, Nevada.
- Lovelock, Nevada. Water supply investigations for the Coeur Rochester Mine near Lovelock Nevada.
- Dry Valley, Idaho. Pit dewatering investigations for the Dry Valley phosphate mine in southeastern Idaho.

Environmental

- **RCRA.** Investigation and monitoring of pentachlorophenol migration in soils and groundwater at Pressure Treated Timber Company in Boise, Idaho. Site closure for the Vale Oregon Irrigation District.
- **Petroleum Contamination.** Investigation/remediation of soil and groundwater contamination resulting from petroleum (gasoline, diesel, heating oil, hydraulic oil, and jet fuel) at more than 30 locations in Idaho, Oregon, Washington, and Wisconsin. Remedial designs have included soil land farming, venting systems, and free and dissolved product extraction systems. Groundwater treatment technologies utilized have included air stripping, carbon adsorption, and enhanced biodegradation.
- Effluent Re-Use. Wastewater and biosolids re-use permitting, soil monitoring, ground water monitoring, and permit annual reports for potato processors, cheese plants, and municipal wastewater.
- **Cyanide.** Research pertaining to cyanide migration and attenuation processes in soils and groundwater with particular emphasis on natural degradation mechanisms.
- Metals. Investigation of shallow groundwater contamination from mine tailings in Butte, Montana for ARCO, including the drilling of approximately thirty monitor wells and Hydropunch borings, aquifer testing, and water quality sampling.

Professional Affiliations

Idaho Ground Water Association



Appendix B TERRY SCANLAN'S EXPERT REPORT



MEMORANDUM

DATE:	July 28, 2021
TO:	Michael Lawrence
FROM:	Terry M. Scanlan, P.E., P.G.
SPF NO:	397.0430
RE:	Expert Report for Transfer No. 82161 (63-123F)



This expert report is provided to support changes to water right 63-123F as proposed by Transfer No. 82161. Based on the analysis provided in this report, the following opinions are offered.

- 1. Under the right circumstances, transferring an irrigation water right into a municipal system for irrigation of lands within a municipal service area is equivalent to transferring an irrigation water right from one irrigation canal system into another irrigation canal system.
- 2. If water right 63-123F is transferred to SUEZ's municipal system for irrigation of lands identified by SUEZ, the water right should be limited to the historical field headgate delivery volume of approximately 508 AFA to address IDWR's enlargement concerns.
- 3. Current water right accounting methods on the Boise River are not compatible with optimization of natural flow water rights that contain volume limits because the accounting system attributes diversions to the senior-most rights in order of priority. As a result, volume-limited senior-priority natural flow water rights reach volume limits prior to the end of the irrigation season when such rights are needed most. Lacking a change in accounting methodology, a transfer of 63-123F with a volume or period of use limitation imposed to address enlargement concerns should be structured to optimize use of the right by assigning a period-of-use start date that allows full diversion of the right through October 31.

History of Water Right 63-123F

Water right 63-123 originated as water right No. 2 in the 1906 Stewart Decree. The water right authorized diversion of 20 cfs with a priority date of June 1, 1864. The right is one of only two Stewart Decree rights that was decreed without the sliding scale (i.e., 100%, 75%, 60%) curtailment cuts; as a result of this special condition and its 1864-priority date, the right is deliverable at 100% for the entire irrigation season each year.

The water right was originally used in the Jacobs Canal, which apparently served as an early municipal water source. According to the Idaho Historical Society¹ (Reference Series No. 171),

"When Boise was founded, irrigation already was underway. Tom Davis' canal took water out of the river about a mile and a half above the town. In 1864 he built a headgate and in 1864 and 1865 a good substantial ditch. His first crop-and that for which he and the valley became famous--was fruit; in 1864 Frank Davis set out seven thousand fruit trees, the produce of which was shipped as far as the Montana mines. The system was sold in 1872 and became the Jacobs Canal Company. The ditch eventually went all the way through Boise and was used not only for irrigation, but also for sewage and pumping."

Water right No. 2 was eventually transferred from the Jacobs Canal in Boise to the Boise Fruit Tracts with conveyance through the Farmers Union Canal, as confirmed by a 1916 District Court judgment. A note in the adjudication claim file indicates that a 1916 contract between the Farmers Union Ditch Company and W.A. Keyt provided 1/3 of water right No. 2 to Farmers Union as carriage loss for conveyance of the Jacobs water.

The Boise Fruit Tracts lands were generally located above the Farmers Union Canal. These lands were subsequently divided, with a portion becoming Capitol View Irrigation District. The remaining Boise Fruit Tracts lands with Jacobs water located outside of the Capitol View boundary included farmlands that were developed as the Lexington Hills subdivisions.

Because the Lexington Hills lands are located above the Farmers Union Canal, pumping has always been required to deliver water. The specifics of the historical agricultural pumping system(s) are unknown, but were reported to consist of flood and sprinkler systems prior to subdivision development.² Such pumping systems could have operated continuously throughout the irrigation season, with water applications rotated through the farm. By rotating irrigation through the farm, alfalfa or hay crops could be periodically harvested on portions of the farm while continuing to fully divert and utilize the water supply on other portions of the farm. This is a reasonable scenario considering that the right supplied only 0.01 cfs per acre; any available water would have been fully utilized to meet crop needs and build soil moisture. Alternatively, the pumps could have been shut down periodically, at which times the water would have flowed downstream for delivery to other headgates along the Farmers Union Canal.

¹ Reference Series No. 171 https://history.idaho.gov/wp-content/uploads/0171.pdf ² Pressurized Irrigation System Demands and Scheduling, Lexington Hills, Eagle, Idaho (Nov. 17, 1991) (attached as Exhibit D to Affidavit of David H. Roylance, In Re SRBA Case No. 39576, Subcase Nos. 63-00123D, 63-00123F, and 63-00123G).

Typical of most canals diverting from the Boise River, the Farmers Union Canal begins deliveries in early April of most years and ceases delivery in early to mid-October. From 2000 through 2020, Farmers Union diverted on average for 190 days per season³; maximum diversion seasons of 203 days occurred in 2015 and 2016. Several of these diversion days involve ramp-up prior to delivery of water; a similar ramp-down occurs at or after the end of the season. Assuming similar diversions occurred historically (i.e., prior to 2000), water right 63-123F historically provided approximately 508 acre feet at the field headgate for irrigation of 136.8 acres (3.71 acre feet per acre) during a conservatively assumed 185-day delivery season.

The crop irrigated by 63-123F prior to subdivision development is reported to have been sprinkler-irrigated alfalfa. The soils at the Lexington Hills place of use are deep loams, which have a high water-holding capacity.⁴ As a result, irrigation efficiencies could have been very high with deep-rooted crops such as alfalfa because very little applied irrigation water is lost to deep percolation.

After development of the Lexington Hills subdivisions, it was determined that the irrigated area and associated irrigation duty of water were less than the total water right held by the Lexington Hills developers (Lexington Hills Inc.). Following extensive proceedings in the Snake River Basin Adjudication, the portion of the right utilized by the subdivisions was decreed to the Lexington Hills Homeowners Association Inc. and the remainder was decreed to Lexington Hills Inc.⁵

Farmers Union currently holds 8.4 cfs of water right No. 2 as 63-123C, with the remainder held by Capitol View Irrigation Company (7 cfs as 63-123E), Lexington Hills Homeowners Association (3.22 cfs as 63-123G), and Lexington Hills Inc (1.385 as 63-123F).

Water right 63-123F has been protected from forfeiture since decree in 2009 through extensions of time to avoid forfeiture and water banking. The right has not been beneficially used on the decreed place of use since development of the Lexington Hills subdivisions in the 1990s. Because the water was not beneficially used at Lexington Hills, any diverted water must be assumed to have passed the subdivision diversion and utilized by other Farmers Union Canal users for the approximately 20 years prior to the decree's issuance in 2009.

³ https://idwr.idaho.gov/apps/wm/DiversionDataApplication/AnnualSummary.aspx

⁴ See Rebuttal Testimony of Terry M. Scanlan, P.E., P.G. at 5-6 (Mar. 18. 2008), In Re SRBA Case No. 39576, Subcase Nos. 63-00123D, 63-00123F, and 63-00123G.

⁵ In Re SRBA Case No. 39576, Subcase Nos. 63-00123D, 63-00123F, and 63-00123G.

Transfer Application No. 82161

A transfer application was submitted by SUEZ Water Idaho Inc. (SUEZ) on February 5, 2018 seeking to change place of use and point of diversion for water right 63-123F. The place of use proposed was 136.8 acres within the service area of the SUEZ municipal water system. The proposed points of diversion were the Boise River intakes for the Marden and Columbia water treatment plants. The transfer did not seek a change in the nature of use. Because 63-123F is a natural flow irrigation water right, it has no stated annual volume limitation. If diverted for the full authorized season (260 days from March 1 through November 15), the maximum theoretical diversion volume would be 714 acre feet (5.2 af/ac).

To satisfy IDWR concerns about a specific irrigation place of use during processing of the transfer, SUEZ identified a proposed 385-acre place of use boundary that contained 136.8 acre of irrigation.⁶ The *SUEZ POU Analysis's* identification of specific acres for irrigation under 63-123F is reasonable.

The application for transfer was denied by IDWR on October 8, 2020 on the basis that the proposed change cannot be accomplished without enlargement of the water right.

SUEZ filed a petition for reconsideration on October 22, 2020. A hearing is scheduled for September 28, 2021.

Analysis

Two options might be considered for approving the proposed transfer of water right 63-123F into the SUEZ municipal water system.

• Maintain the water right use as irrigation, as currently proposed by SUEZ. Under this approach, the irrigated area could be 136.8 acres within the proposed 385-acre boundary. To address IDWR's enlargement concerns, the water right could be limited to historical diversion volume, which would be the 508-acre-foot estimate based on 185 days of annual delivery to the field headgate. The irrigation efficiency within the proposed 385-acre boundary will probably be lower than the historical irrigation efficiency at the previous place of use because of the slightly coarser soils and smaller irrigated areas with inefficient sprinkler systems at the proposed place of use. The "crop" in the proposed place of use will be mixed landscape, likely to have a lower consumption than alfalfa.⁷ As a result, there should be no consumptive use enlargement of the right provided that the annual diversion volume does not increase.

⁶ Letter from Michael P. Lawrence to Nick Miller re: Application for Transfer No. 82161 in the name of SUEZ Water Idaho Inc. (Sep. 12, 2019) ("SUEZ POU Analysis")..

⁷ Mixed landscape might consist of trees, shrubs, lawn, gardens, and ground cover (bark mulch and rock)

As an alternative to imposing a 508 AF annual diversion volume, the same result could be obtained by imposing a 185-day season of use.

Convert the water right from irrigation to municipal purposes. I understand that IDWR policy⁸ for such nature of use transfers is to limit the annual volume to the historical consumptive use. Based on ET Idaho⁹ data for the Boise Airport weather station, annual growing season precipitation deficit (consumptive use) for alfalfa with frequent cuttings, is 960 mm (3.15 feet), and for alfalfa with less frequent cuttings is 963 mm (3.16 feet). Using these figures, the transferrable volume would be 430.9 acre feet or 432.2 acre-feet, respectively. Assuming a historical delivery volume of 508 acre feet, these volumes would be equivalent to an irrigation efficiency of 85%. Although 85% efficiency is high for wheel line or hand line sprinkler irrigation, it could have been achievable at Lexington Hills due to the high water-holding capacity of the deep loam soils. If right 63-123F is transferred¹⁰ to SUEZ's municipal system and limited to historical consumptive use, no additional conditions (such as place of use reporting) would be necessary.

In comparing the two transfer options above, the transfer that maintains the purpose of use as irrigation is more advantageous to SUEZ because it allows for a larger annual diversion volume for essentially the same use. As referenced by SUEZ's October 22, 2020 petition for reconsideration, IDWR has approved a number of past transfers¹¹ of irrigation water rights into municipal water systems, both with and without a nature of use change, without a reduction in annual diversion volume. In each instance, limiting the water right to the authorized diversion volume and season of use was adequate to prevent enlargement. In some cases, such as Transfer 72128 (City of Mountain Home), IDWR required reporting of information concerning the amount of irrigation use within a municipal service area. This is consistent with former IDWR Director Karl Dreher's determination in 1998 that "provided an

⁸ Administrative Memo No. 24 Section 5.d(12). "An application for transfer, which proposes to convey an established water right to a municipal provider and change the nature of use to municipal purposes, as defined in Section 42-202B, Idaho Code, shall not be approved without limiting the volume of water divertible under the right to the historic consumptive use under the water right prior to the proposed change. If the proposed transfer involves a surface water right, the transfer shall not be approved without also limiting the right to the historic period of use under the right prior to the proposed change."

⁹ http://data.kimberly.uidaho.edu/ETIdaho/

¹⁰ Whether changed to municipal use or maintained as irrigation use, limiting the right to historical consumptive use will prevent enlargement—as discussed in the main text, by reducing the quantity more than necessary in some cases.

¹¹ T72128 and T7823 (City of Mountain Home), T75824 (City of Coeur d'Alene), T78803 (City of Jerome), and T82051 (City of Sugar City)

appropriate accounting is made of the amounts of water diverted and used for irrigation, a municipal water provider may divert irrigation water into its common municipal delivery system and deliver the irrigation component for irrigation purposes."¹²

Regardless of whether the use is called irrigation or municipal, the water will be diverted during the irrigation season when there is an irrigation demand within the proposed place of use. The irrigation demand for the 136.8 acres will at times exceed the rate available from 63-123F because the right provides only 0.01 cfs per acres. At times when irrigation demands exceed 0.01 cfs/ acre, the irrigation use from 63-123F can be supplemented with other SUEZ water rights. It is also possible that the irrigation demand for the 136.8 acres will at times be less than 1.385 cfs. At such times, the water will continue to be diverted but utilized for irrigation of other lands within the municipal service area, of which there are many more acres than the 136.8 authorized under 63-123F. This would be similar to when the water had not been pumped for irrigation at the original Lexington place of use; the unused water would flow to other Farmers Union Canal water users. Although not explicit in the water rights, delivery of unused water to other water right holders in any canal is a common practice, allowing that water to be used on, or "rotated" to, other lands served by the canal.

Given the abundance of irrigated lands within SUEZ's service area, there is little reason to believe that any water diverted under 63-123F would be used for purposes other than irrigation. However, to the extent that is concern, such other uses would primarily be non-consumptive domestic uses within SUEZ's municipal system where the majority of water returns to the river through wastewater treatment plants (particularly the City of Boise's). In other words, in the unlikely event that 63-123F would be used for purposes other than irrigation in SUEZ's municipal system, such uses would result in even greater return flows to the Boise River.

The IDWR policy to allow transfer of only the historical consumptive volume when changing the nature of use from irrigation to municipal use is intended to prevent enlargement. But the policy is overly restrictive in some cases. The majority of water diverted through the SUEZ system during summer months is used for irrigation. But a significant percentage (approximately 20 to 40 percent, depending on the time within the irrigation season) of the SUEZ diversions are also utilized for other (primarily in-home domestic) purposes. The domestic portion is largely non-consumptive because most of the water returns to the river through the City of Boise's wastewater treatment plants. By limiting the post-transfer diversion volume in a nature of use transfer to historical consumptive use, both the diversion

¹² Letter from Director Karl Dreher to Michael C. Creamer ("Dreher Letter"), p. 2 (Apr. 7, 1998) (copy attached as Appendix A to SUEZ's Petition for Reconsideration and Request for Hearing (Oct. 22, 2020) in this transfer proceeding).

volume and the consumption would be reduced. Such a reduction penalizes the water right holder and is not needed to prevent enlargement of 63-123F.

In any case, any volume limitation imposed on a transfer of water right 63-123F should be made with IDWR's accounting system in mind. As already mentioned, the right historically has not had a volume limitation, which means the right could remain in priority and be delivered from the beginning to the end of the irrigation season. However, I understand that IDWR's accounting system accrues water first to a holder's most senior natural flow water right. Under this approach, if water right 63-123F is transferred to SUEZ's municipal system with a volume limitation or a 185-day period of use, IDWR's accounting system will begin accruing water to the satisfaction of 63-123F (the most senior right SUEZ will hold) early in the season at the same time when SUEZ's junior natural flow rights are in priority. This would significantly reduce the value of SUEZ acquiring the right. If IDWR cannot alter its accounting system so that water accrues to the satisfaction of a holder's junior natural flow rights first, right 63-123F should be conditioned so that the date water begins accruing is calculated backward from the end of the irrigation season so that the right remains available to the fullest extent later in the irrigation season when junior rights are no longer in priority.¹³

Conclusions

- 1. Water right 63-123F can be transferred into the SUEZ municipal system for irrigation of lands identified in the *SUEZ POU Analysis* without enlargement by limiting the annual diversion volume to the historical field headgate volume of approximately 508 AF or by limiting its period of use to 185 days. Such a limit will prevent the transferred water right from exceeding the historical diversion volume and historical consumptive volume.
- If a volume or period of use limitation is imposed on the transfer of 63-123F, the rights should be conditioned (or IDWR's accounting system changed) so that water begins accruing to the right as late in the irrigation season as possible to allow to SUEZ obtain the full benefit of the right until the end of the irrigation season.

¹³ For example, if a 508 AF volume limitation is imposed on transfer of 63-123F, the 185-day period of use would be calculated backward from the end of the standard irrigation season (October 31) so that water begins accruing to the right on April 29 (rather than the standard irrigation start date of April 1 (or March 1 in high-water years)).

Appendix C CATHY COOPER'S EXPERT REPORT

Lexington Hills Water Right Transfer







FROM	Cathy Cooper Director of Engineering	то	Mike Lawrence Attorney, Givens Pursley
	Roger Dittus Hydrogeologist		
DEPARTMENT	Engineering, Idaho Operations	DATE	September 4, 2019
SUBJECT	Lexington Hills Water Right Transfer Irrigated Area Calculation Methodolo	– gy	

BACKGROUND

The developers of Lexington Hills, a subdivision in Eagle, Idaho, reserved a piece of their original irrigation water right appurtenant to the formerly irrigated land now covered by rooftops and paved areas. The water right (63-123F), is for 1.385 cfs of irrigation water from March 1 to November 15, with an acre limit of 136.8 acres.

SUEZ intends to buy this water right and transfer the place of use and place of diversion for use in SUEZ's municipal system and service area. In connection with the transfer, the Idaho Department of Water Resources is requiring SUEZ to identify specific acres within SUEZ's service area that will be irrigated with the water right.

This memorandum documents our analysis identifying those acres, which are displayed in Figure 1 below.

SUMMARY OF PLACE OF USE CALCULATION

We chose an area within the SUEZ service territory that can be supplied by either the Marden Water Treatment Plant (WTP) or Columbia WTP (the proposed post-transfer points of diversion for water right 63-123F), and that is not included in a canal company boundary, and therefore would not have a canal irrigation water right. The North End of Boise was selected.

We used a three-step analysis to determine where 136.8 acres would be irrigated in SUEZ's service area under the transferred water right: (1) identify an area in Boise's North End where 136.8 acres is irrigated, based on average percentage of irrigated land in the vicinity; (2) determine how many acres within that initial area are likely irrigated with domestic wells or irrigation water rights; and (3) increase the initially identified area to account for the domestic wells and irrigation water rights.

In summary, based on the average percentage of irrigated area in Boise's North End (approximately 36 percent), a total land area of 380 acres was initially identified (136.8 acres / 0.36 = 380 acres). To this shape, we added 5.0 acres in areas where no private wells or irrigation water rights exist to account for irrigation from individual domestic wells and irrigation rights in the initially identified 380 acre area. The final result is the 385 acre area identified in Figure 1, within which 136.8 acres will be irrigated with the transferred water right.



DETAILED PLACE OF USE CALCULATION

1. INITIAL IRRIGATED AREA CALCULATION BASED ON SAMPLE GRIDS. To determine an average irrigated area percentage of residential area in the North End we randomly selected 5 sample areas, and manually calculated the irrigated area percentage in these grids. The average percentage of irrigated area in the five sample grids is approximately 36%. Appendix A includes the detailed sample area calculation information.

Based on this 36% figure, we initially identified a total land area of 380 acres (136.8 / 0.36) as the area containing the lands proposed for irrigation under the transferred water right.

2. DOMESTIC WELL AND IRRIGATION WATER RIGHT ANALYSIS. We searched the IDWR database for individual wells in the initial 380 acre area to account for any area that might be irrigated by domestic/irrigation wells. We found nineteen total well locations in the area, with fourteen well logs expressly describing "domestic" use, one describing "yard," one describing "lawn," and three describing "irrigation" use. Because we identified only one recorded irrigation water right associated with any of the wells (discussed below in the irrigation water rights paragraph), we assumed the "yard," "lawn," and two of the "irrigation" wells supply uses similar in nature to "domestic" irrigation. Thus, we identified a total of 18 wells that appear to be associated with unrecorded domestic water rights.

Although each domestic well can irrigate up to 0.5 acres under an unrecorded domestic water right, the lots in this area average about 0.2 acres total. We assume that only one lot is irrigated with each well, for a total of 18 lots covering a total of 3.6 acres (18 lots x 0.2 acres = 3.6 acres) within the initial 380 acre area that are irrigated with private wells under unecorded domestic water rights. To address this, we added 3.6 acres to the initial 380 acre area. Appendix B includes information used in this analysis, including the well logs.

We also searched IDWR's database for irrigation water rights with places of use in the initial 380 acre area. There are four irrigation water rights identified as wholly or partially within the area. Of these, only two of them appear to actually irrigate land—0.5 acres—in the 380 acre area. To account for this, another 1.4 acres (0.5 acres / 0.36 = 1.4) was added to the initial 380 acre area. Appendix C includes information used in the irrigation water right analysis.

3. FINAL PLACE OF USE CALCULATION. Based on the average percentage of irrigated area in Boise's North End (approximately 36 percent), a total land area of 380 acres was initially identified (136.8 acres / 0.36 = 380 acres). To this shape, we added 5.0 acres in areas where no private wells or irrigation water rights exist to account for irrigation from individual domestic wells and irrigation rights in the initially identified 380 acre area. The final result is the 385 acre area identified in Figure 1, within which 136.8 acres will be irrigated with the transferred water right.





Figure 1 – SUEZ Irrigated Area, 385 acres total, within which 136.8 acres will be irrigated with the transferred water right No. 63-123F.



APPENDIX A

SAMPLE GRID IRRIGATED AREA CALCULATION

- 1. A 2.3 acre grid square was created
- 2. 5 sample sites of 2.3 acres each were randomly selected in Boise's North End area.
- Ortho photos from 2013 (flown in fall or spring) show a clearer view of ground cover without tree leaves present than ESRI-produced USA NAIP imagery NDVI layer from 2017. We used the 2013 imagery for this calculation since it did not include as much tree cover.
- 4. The images were manually assessed and we covered the grass/irrigable areas with a vibrant green color.
- 5. A color summarizer on the web was used to calculate areas of different colors, http://mkweb.bcgsc.ca/color-summarizer/?home
- 6. The 5 grid squares analyzed are included on the following pages.
- 7. Average irrigated percentage calculated from the 5 random grid squares is approximately 36%.

Sample Grid	Irrigated Percentage
First Sample Grid	32.5%
Second Sample Grid	38.6%
Third Sample Grid	33.7%
Fourth Sample Grid	36.3%
Fifth Sample Grid	37.5%
Average	35.7%



First Sample Grid - 32.5% Irrigated Area

IMAGE COLOR SUMMARY



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Second Sample Grid - 38.6% Irrigated Area

IMAGE COLOR SUMMARY



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Third Sample Grid - 33.7% Irrigated Area

IMAGE COLOR SUMMARY



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Fourth Sample Grid - 36.3% Irrigated Area

IMAGE COLOR SUMMARY



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Fifth Sample Grid - 37.5% Irrigated Area

IMAGE COLOR SUMMARY



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	14 (44 44)		12.472	$(1,0) \leftrightarrow$	$0^{(\alpha)} \theta$	$(\mathbf{i},t^{\prime})^{\prime}$	$H \leq t$	$\begin{array}{l} P(a_{0},b_{1}) = (b_{1}^{-1},b_{2}^{-$
	n de		13454 R	01 102 102	11.75.54	11-12-14	$\overline{\mathbf{t}}(\mathbf{s}^{(i)})$	parative $\omega_{i}^{(2)}=\omega_{i}^{(2)}$, we want the set of the state of
5	(†.185		TECHON,	11.14 31	3 ² + ³²	$z_{i} \sim y_{i}$	$\tilde{v}_{p,m}^{(1)}(z)$	$ \begin{array}{llllllllllllllllllllllllllllllllllll$
	2.85	•••••••	*)43 ⁺¹ ,	12 11 50	98 E.B.	1211-142	1.42.2	where it is stabilized by the trade to be the stabilized by the trade to the trade
	199	and the second	1878-18	11.115.11	77.31.51	H E 30	22, 454, 55	()(**
	· jei,		1153148	39.14	a)) 1° 11	11 i 4 i 4	e ai k	مرد المدير المدير المدير.
	1.54	1	1 24521	AC 111 (\$1	714 7 <u>8</u> 55	t n (4)	r et a	(10.447) all of a track \$2.15
	11	10 100 mm 10 10 mm 10 10 mm +++++++++++++++++++++++++++++++	APPH	15-18-11	1) 21 F	23 (g. 12)	2142115	where $\mathbf{A}_{ij} = \mathbf{x}_{ij}$ and \mathbf{x}_{ij}^{ij} are given
	£ 15	to the set	11430E	149-119-161	·) (4 64	$\hat{u} \hat{v} \hat{v}$	53(-3)	A service of the serv



APPENDIX B DOMESTIC WELL CALCULATION

Well Search Results from IDWR Web Site:



Figure B-1 – Well Search Results from IDWR Web Site and 385 Acre Area Containing 136.8 Acres to be Irrigated



- 1. 19 well locations found in IDWR's mapping system located within initial 380 acre area. See Figure B-1 above. The well logs are attached.
- 2. A total of 24 well logs linked to the 19 well locations.
 - 14 logs described domestic use.
 - 3 logs described irrigation use, only one of which (Brown) has an associated recorded irrigation water right (63-11609, addressed in Appendix C).
 - 1 log (Lunstrum) was for "yard" use.
 - 1 log (McLaughlin) was for "lawn" use.
 - 1 log (Mrs. Ralph Black) was a duplicate.
 - 1 log (Bill Cockerum) was for deepening an existing well.
 - 1 log (Rebeka Fredricks) was actually located outside the 380 acre area (in the NWNW of Sec.
 3).
 - 1 log (Intermountain Gas) is a "Cathodic Pr[o]tection Well" and not for domestic or irrigation use.
 - 1 log (Worbois) is an injection well and not for domestic or irrigation use.
- Assumed the 14 domestic use wells, 2 irrigation wells (with no recorded water rights), 1 "yard" well, and 1 "lawn" well have associated unrecorded domestic water rights authorizing up to 0.5 acres of irrigation. Also assumed that each of these 18 wells irrigates only one lot.
- 4. Lots in the Boise North End average 0.2 acres total.
- 5. Irrigation of 18 lots with these private wells means that 3.6 acres must be excluded from the 380 acre area because those acres will not be served by the transferred water right no. 63-123F. To account for this, 3.6 acres must be added to the initial 380 acre area.

REPORT OF WELL DRILLER

م منتقب قبل

68

State of Idaho 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: $\rho A i \rho \sigma c$

. .

Name More, Ralph Bluel	Size of drilled hole: 4 Total depth of well: 143 Standing water
Address 14th 4 PictCa	Fahr. Test delivery: 20 gpm
Owner's Permit No.	Size of pump and motor used to make test:
New well Deepened Abandoned	Length of time of test: no Hrs. Min.
Water is to be used for: Commenter	above land surface Give flow cfs
METHOD OF CONSTRUCTION: Rotary Cable 7 Dug Other	or gpm. Shutoff pressure: Controlled by: Valve Cap Plug
(explain)	No control Does well leak around casing?
4 "Diam. from 39 ft. to 140 ft.	DEPTH MATERIAL 041536 WATER
"Diam. from ft. to ft.	FEET FEET
"Diam. from ft. to ft.	39 5P multip-same 2 Oranel X
Thickness of casing:	52 145 11 01 11
Steel X concrete wood other	151 152 . Jane X
	152 155 hale
(explain) PERFORATED? Yes No V Type of	155 159 denat Cherry X
perforator used:	
Size of nenformations: " by "	
perforations from ft. to ft.	
perforations fromft. toft.	
perforations fromIt. toIt.	
WAS SCREEN INSTALLED? Yes No	
Manufacturer's nameMedel 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 Gravel Gravel	
provided? Yes No To what depth?	
ft. Material used in seal:	
Did any strata contain unusable water? Yes	
No. X Type of water:	
strata off:	
Sunface engine wood? You I No. 14	
Cemented in place? Yes No No	
Locate well in section	
	Work started: Store, A. 1947
	Work finished: Warn , 17 176.8
Sec	drilled under my supervision and this report
	is true to the best of my knowledge.
	Rame: Contractor A Lordan
	Address: <u>MATE CONTENT</u>
hand hand hand hand hand hand hand hand	License No. 29 Date: 600000000
LOCATION OF WELL: County and	Contraction of the second seco
55 x 511 % Sec. 34 T. 4 N/B R. 2 E/W	
Use other side for	additional remarks
	$\Box > G$

	Same Belleman
REPORT OF W State o	TELL DRILLER TI-AT
State law requires that this report shal Engineer within 30 days after completion or a	l be filed with the State Reclamation bandonment of the well.
WELL OWNER: Ralph Black Name Mrs. Ralph Black Address /4 4 4 /3 clca Baisc Jedahom Owner's Permit No. NATURE OF WORK (check): Replacement well New well Deepened Abandoned Water is to be used for: <u>domicatic</u> METHOD OF CONSTRUCTION: Rotary Cable & Dug Other <u>(explain)</u> CASING SCHEDULE: Threaded Velded & 4 "Diam. from ft. to ft. "Diam. from ft. to ft. "Diam. from ft. to ft. Thickness of casing: <u>.33</u> Material: Steel & concrete wood other	Size of drilled hole: Total depth of well: 70' Total level below ground: 70' Temp. Fahr. 7 Test delivery: 20 gpm or cfs Pump? Bail Size of pump and motor used to make test: Compared of time of test: 000 Hrs. Min. Drawdown: 6 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 MATERIAD41537 WATER FROM TO YES OR NO FEET FEET 39 5 formating sand & grouel X 58 /45 // 56 Arde
(explain) PERFORATED? Yes No X Type of perforator used:	152 155 shale 155 156 sand opening X 156 163 mellow Class
Size of perforations: " by"	
Did any strata contain unusable water? Yes No. X Type of water: Depth of strataft. Method of sealin, strata off:	8
Surface casing used? Yes No. Cemented in place? Yes No. Locate well in section Sec. LocATION OF WELL: County SE & SW & Sec. 34 T. 4 N/S R. 2 E/S Use other side for	Work started: Dec. 5-1967 Work finished: Dec. 5-1967 Well Driller's Statement: This well was drilled under my supervision and this report is true to the best of my knowledge. Name:
- 425	

Form 238-7

STATE OF IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

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.

1. WELL OWNER Name LYNN A. BROWN Address 2305 Nº 14 ST	7. WATER LEVEL Static water level <u>34</u> feet below land surface. Flowing? □ Yes □ No G.P.M. flow	
Drilling Permit No. <u>63-98-2-736</u> Water Right Permit No.	Artesian closed-in pressure p.s.i, Controlled by: Valve Cap Plug Temperature F, Quality Describe artesian or temperature tones below.	
2. NATURE OF WORK Deepened Deepened Replacement Well diameter increase Abandoned (describe abandonment procedures such as	8. WELL TEST DATA	nped
materials, plug depths, etc. in lithologic log)	Ain Comp 506 Pm 120 22	
3. PROPOSED USE		
□ Industrial □ Stock □ Waste Disposal or Injection □ Other (specify type)	Bore Depth Material	Water Yes No
4. METHOD DRILLED □ Rotary □ Air □ Hydraulic □ Reverse rotary 2. Cable □ Dug □ Other	6 0 5 Top? Soil 5 28 SANDY Soil 28 32 SANDY GRAY CLAY 32 65 GAAY SAND Some GRANS 65 86 RADON SAND SOME GRANS	р
5. WELL CONSTRUCTION Casina schedule: D Steel Concrete Other	BU 59 SANDY GUNY CLAY SU 99 FINE SAND & SUME GANNE 99 120 SHNDY GLAY CLAY	
Casing schedule: If Steel Concrete Other Thickness Diameter From To		
Cemented between strata Describe access port	10. Work started $\frac{2/21/91}{91}$ finished $\frac{3/1/9}{91}$	
6. LOCATION OF WELL Sketch map location <u>must</u> agree with written location <u>N</u> N Subdivision Name <u>Black</u> <u>N</u> W X E Subdivision Name <u>Black</u> <u>N</u> 9 1992 Lot No. <u>I</u> Block No.	11. DRILLERS CERTIFICATION I/We certify that all minimum well construction standards complied with at the time the rig was removed. Firm Name <u>Boiss Valley Journ</u> Firm No. <u>20</u> Address <u>29505 GANDER</u> Date <u>3/5/0</u> Signed by (Firm Official) <u>Don et Mun</u> and (Operator) <u>Don Mun</u>	s were
NE 1 Sur 1 Sec. 34 . T. 4 S . R. 2 W	- (Operator) for I muy	¥.

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

A
USE TYPEWRITER OR
DALE. ONTITICA

State daho 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.

within 50 days after comple-	tion of	avanue	Junient					
1. WELLOWNER Name Bill Cockenum	7. V S F	tatic willowing	LEVEL ater level ?	1.3.2-9 feet below land su es Ø No G.P.M. flow	rface			
Address 23 11- Inglewood Va. How	Temperature F. Quelity Artesian closed-in pressure p.s.i.							
Owner's Permit No								
2. NATURE OF WORK	8. V	ELL T	EST DA	ТА				
New well Deepened Replacement] Pump	1	Bailer Other	Compres	un	_	
Abandoned (describe method of abandoning)	D	ischarge	G.P.M.	Draw Down	Hours P	amped 84 m		
	_				0.200	0.00		
3. PROPOSED USE								
Domestic 🗆 Irrigation 🗆 Test	9. 1	ITHO	.ÒGIC L	.0G	39549			
Municipal Jodustrial Stock	Hole	De	pth	Material		Wa	ter	
	6"	O	2	TOP SOIL	-	Tea	NO	
4. METHOD DRILLED		2	35	Sandy Solly	CLay			
🗆 Cable 🛛 Rótory 🖓 Dug 🖓 Other	-	35	678	"GRZVEL - W	ATER	X	-	
					-, -, -, -, -, -, -, -, -, -, -, -, -, -	1	-	
	-		-			-	-	
Diameter of hole inches Total depth feet								
Thickness Diameter From To	-					-	-	
125° inches 6 inches 1/ feet 6 feet								
inches inches feet feet	-		-					
inches inches feet feet								
inches inches teet teet						-		
Was a packer or seal used? Yes No						1		
How perforated? Factory Knife Torch			1				2000	
Size of perforation inches by inches	-	1				-	-	
perforations feet feet							_	
perforations feet feet	-							
perforations teet teet							-	
Well screen installed? 🗆 Yes 🔂 No								
Type Model No							_	
DiameterSlot sizeSet fromfeet tofeet	-							
teet to feet to feet to feet		<u> </u>						
Gravel packed? 🖸 Yes 🛱 No Size of gravel						-		
Placed from feet to feet								
Surface seal? \$ Yes I No To what depth 28 feet		- 4						
Material used in seal Cement grout by Puddling clay								
6. LOCATION OF WELL		~	L			1		
Sketch map location must agree with written location.	10.		1-	11917-	10100			
	W	ork sta	rted / 🤟	<u>(/18/12</u> finished	12/20/	12	-	
()	11.0	BILLE	B'S CE	RTIFICATION	093			
dy w <mark>itte</mark> ite	т	his well	was dri	lled under my supervision an	d this report	is		
V	tr	ue to th	ne best o	of my knowledge.				
s s		E	rne	it Kelsey	3	29	1	
AL	0	iller's or	Firm's N	ame C+ DII	Num	ber ,-	- (
Quit un a	_ <u></u>	F/ B idress	0136	Sin sach	0		÷	
<u>VW % NE % Sec. 3, T. 3 N/J. R. 2 EM</u>	Si	ned By	ate	a Kelsey	1/20/ Date	73	2	
		1000 CO. 100						

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

	Ä.,			2 60	200 12 (7 (3)	(FRIC	R
State d Jaho Department of Water Administration							
WELL DRILL	ER'S	RE	PO	RT UU JI	JL 6 197	5 7	y
State law requires that this report be filed with the Dir days after the completion o	rector, D r abando)epartm onment	ent of V of the	later Administration within 3 well.	0		
1. WELL OWNER	7. W	VATER	LEVEL	- Departme	nt of Water Ke	sourc	:05
Name_Bill Cochemin	s	tatic w	ater leve	33-7 feet below land su	urface	n	n
Address 25 11- Inglewood Rd, Bois	⊢ F ⊀ T	lowing	ture	es St. No G.P.M. flow	·		-
Owner's Permit No Jda	A C	rtesian ontroll	closed-i ed by	in pressurep.s.i.	🗆 Plug		
2. NATURE OF WORK Well on N: - 13 th St.	8. W	ELL T	EST DA	TA			
New well New well Deepened Replacement	þ	Pump		🗆 Bailer 🛛 Other			_
Abandoned (describe method of abandoning)	D	36	G.P.M.	Draw Down	Hours Pu 48	umped	
3. PROPOSED USE				L			
1 Domestic 🗍 Irrigation 📮 Test 🔲 Other (specify type)	91	ітної	OGIC	06			
Municipal Industrial Stock Waste Disposal or	Hole	De	pth	Metaviel		Wa	iter
Injection	Diam.	From 68	70	thin arovel, fine	vellow	Yos	No
4. METHOD DRILLED		20	119	sand	0	X	x
Cable Cable Rotory Dug Other		109	120	heaving sandy	muck	X	
5. WELL CONSTRUCTION		120	143	Hellow cloye	with	to	-
Diameter of hole 6" inches Total depth 227 feet				bearing much	yound		
Casing schedule: Da Steel L Concrete Thickness Diameter From Diameter		143	154	dry silty type	blue sho	le	ļΧ,
inches inches + feet feet		154	181	quite solid be	ue alale	-	x
inches feet feet feet		181	182	fine yellow	sand	V	X
inches feet feet		182	183	under bumb	ino test		-
Was a packer or seal used? 🕅 Yes 🗆 No				could not stop	of the		
Perforated?				yellow sand	-11-1		
Size of perforation inches by inches Number From To		7 \$ 3	195	medium Coarse	blue	V	
perforations feet feet		195	209	blue shale_	1.4.		X
perforations feet feet		204	210	fine blue son	1-stringer	- ~	
Well screen installed? 0 0 X Yes 🗆 No		210	213	chale Coarse blue	and		X
Manufacturer's name Johnson Type Stainless steel Model No		214	21=	drill water on	ly o	X	v
Diameter 5 Slot size 30 Set from 2/0 feet to 222 feet Diameter Slot size Set from feet to feet		215	100	and a stand	Quinase		
Gravel nacked? Yes N No Size of armial		212	ad/	sand	alle_	X	
Placed from feet to feet		-0		Chemical + ele	tuc /	2	
Surface seal depth <u>40</u> Material used in seat 🗆 Cement grout	ma	chi	ne a	alysis of we	ter O	9	
Seeling procedure used IV Starry sit D Tameorary surface coming		-200	<i>(†</i> ,	but high in	cron Co	te	nt
Overbore to seal depth						-	
6. LOCATION OF WELL	10. W	ork star	ted_	uly 21_finished	aug. 24.	.19	24
Sketch map location must agree with written	FN					5051)-	-
	LU. DI	RILLER	S CERT	FICATION		29	7
W	F	irm Nor	lt.	ALA RHI	Firm No	24	- 1
Lot No Block No	A	ddress <	lat	P. A.A.	_ Date porg	140	-1
	s	gned by	(Firm	Official) <u>Corney</u>	erary	170	-
County_Uda	ليبرجن		(Ope	rator) H BANG	op Arring		
S.W. NE & Sec. 3 T. 3 N/\$, R. 2 E/			1100	1 23	Street a succession	8	

	SUBMIT W	ITHIN 30	DAYS AFTE	R COMPLETIO	N OF WELL:	SER IDA	HO STATUI	TES 42-2	38	
Permit No.	R. I	We	No	County	Ida		Loca	te well in	section	
Owner	320	7 10	mener	ellon		,			1	1
Address_	Fre	at	Kela	20 -			NW	4	-NE 1/4	
Address	R#1.	- Si	ar ;	Ida	ho			 _ Sec	-	
Well local	SW	K NW	4 Sec. 2	- T_3_N	× R	E/X			j	
Size of dri	lled hole	6"							-58%	1
				Total depti	of well	2'	L	<u></u>		
Give dept	h to standin	ng <u>water fra</u>	m the ground	a 2/ Wat	er temp. 5	0 <u>•Fahr.</u>				
T es t deliv	very was	<u>50 g.p.m</u> .	ore	f.s. Drawdown	wasfe	et. Pump?	Beil	?/		
Size of pur	mp and mol	tor used to n	nake test_U	un cor	nores	aer_	resu	ad		-
Length of t	time of test.	flaur	hours		nutes.					
If flowing	well, descri	bed control	works							-
		1	, , .		TYPE AND SI	ZE OF VALVE	ETC.)			
Water will	be used fo	- lor	gotio	n_v	Veight of casis	ng per linea	foot			2
Water will Thickness of	be used fo	188	Cosing ma	n_v terial_St	Veight of casis	ng per lines	il foot	fer		÷ •
Water will Thickness o Diameter, I	be used fo of casing length and i	188 Iscation of a	Cosing ma	terial St	Veight of casin	CONCRETE, V	VOOD. ETC.)	L		- - -
Water will Thickness (Diameter, I	be used fo of casing length and	Iscation of a	Cosing ma cosing Cosing Ma	terial 12" (CASING 12" CASING OV	Veight of casis (STEEL, - <u>Groc</u> IN DYMETER C ER 19 IN DIAM	CONCRETE, V	I foot	L METER: TTER)		÷ •
Water will Thickness (Diameter,	be used for of casing length and	188 188 location of e	cosing ma	terial St - 62 (CASING 12" CASING OV	Veight of casis (STEEL, IN DYMETER C IN DYMETER C IN DIAM	CONCRETE, V	I foot	L METER: TTER)		- - -
Water will Thickness (Diameter, 	be used for of casing length and l	Incation of a	casing _6	terial St - 62 (CASING OV CASING F	Veight of casia (STEEL, IN DYAFTER C IN DYAFTER C IN DYAFTER C IN DYAFTER C	CONCRETE, V CONCRETE, V CONCRETE, V CONCRETE, V CONCRETE, V CONCRETE, V CONCRETE, V CONCRETE, V CONCRETE, V	I foot	L METER: TER)		
Water will Thickness of Diameter, I Diameter, Casing	be used for of casing length and From Foet	To Feet	Casing ma asing C	CASING F	Veight of casia (STEEL, (STEEL, CARCER C ER 12 IN DIAM RECORD Remarks	seals, g	NOOD, ETC.) Lewe E INFIDE DIAN UTSIDE DIAN UTSIDE DIAN	L Merter: tter)		
Water will Thickness of Diameter, I Diam. Casing	be used for of casing length and From Foet	To Feet	Casing ma asing 6	CASING F	Veight of casin (BTEEL, IN DIAMETER C ER IS IN DIAM RECORD Remarks	ng per lines concrete, v md pr LESS, GIV eter, GIVE O eter, GIVE O	routing, etc.	L METER: TTER)	well	-
Water will Thickness of Diameter, I Diam. Casing	be used for of casing length and From Foet	To Feet	Casing ma asing 6	CASING P	Veight of casin (STEEL, IN DIAMETER C ER 19 IN DIAM RECORD Remarks	concrete, v	routing, etc.	L METER: TTER)	well	
Water will Thickness (Diameter, I Diam. Casing	be used for of casing length and From Foet	To Feet	Cosing ma cosing (CASING P	Veight of casin (STEEL, IN DIAMETER C ER 19 IN DIAM Remarks	seals, g	routing, etc.	L METERI TTER)	well	
Water will Thickness (Diameter, I Diam. Casing	be used for of casing length and From Feet	To Feet	Cosing ma cosing (CASING I	Veight of casin (STEEL, CASTEEL, CASTEEL, CASTER C ER 19 IN DIAM Remarks	seals, g	routing, etc.	L METERI TTER)	well	
Water will Thickness of Diameter, I Diam. Casing C ''	be used for of casing length and l From Foet	To Feet C2	Cosing ma cosing (CASING I	Veight of casia (STEEL, (STEEL, CARCER OF IN DIAM RECORD Remarks Lot Kated	reper lines	routing, etc.	L Merter: trer)	well ust	

a 2

From Feet	To Feet	Type of Material	Water-benying Formation Ana. Yes or No	Casting Perforated Ana. Yes or No
1'	18'	sandy soil	no	no
18'	27	gravel	no	no
27'	62'	gravel	yes.	no
		· · · · · · · · · · · · · · · · · · ·		
		N		
		анан алан алан алан алан алан алан алан	-	
		If more space is required use Sheet No. 2		

WELL LOG

10.00

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 Englemon _____ By

License No. 256

. 1965 Doted Jan ø

Well Driller's Helper.

Form 238-7 6/07

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

1. WELL TAG NO. D 0064334	2. STATIC WATER LEVEL and WELL TESTS	:						
Drilling Permit No. 012045 -9108100	Depth first water encountered (ft) 45' Static water level (ft) 45'							
Water right or injection well #	Water temp. (°F) 58 Bottom hole temp. (°F) 58							
2. OWNER	Describe access port Sanitary Well Cap							
Name Flynner, Scott	Vell test: Test met	Test method:						
Address 633 N. 14th St	Drawdown (feet) Discharge or Test duration (minutes) Pump	Flowing Beiler Air entersion						
City Boise State ID Zip 83702	65 75 30 T							
3. WELL LOCATION:								
Twp. 3 North X or South Reg. 2 East X or West								
Sec. 3 1/4 SVV 1/4 IVE 1/4	Vater Quality test or comments:							
Gov't Lot County Ada	3. LITHOLOGIC LOG and/or repairs or aband	donment:						
Lat. 43 ° 37.584 (Deg. and Decimal minutes)	Bore							
Long. 116 ° 12.019 (Deg. and Decimal minutes)	Dia. From To Remarks, lithology or description	of repairs or Water						
Address of Well Site 2001 10th St.	10" 0 2 Top Soil							
City Boise	10" 2 10 Black Clay	X						
(Che al best name al read = Distance to Read or Landsman Lot Blk Sub Name	10" 10 40 Brown Clay	X						
4. USE:	10" 40 45 Coarse Sand	X						
	10" 45 48 Brown Clay	X						
	6" 48 83 Gravei	^						
5. TYPE OF WORK check all that apply (Replacement etc.)	6" 110 120 Coarse Sand	X						
New Well Replacement well Modify existing well	6" 120 123 Blue Clay							
Abandonment Other								
6. DRILL METHOD:								
Air Rolary D Mud Rolary Cable Other								
7. SEALING PROCEDURES								
Seal material From (ft) To (ft) Quantity (bs or ft ³) Placement method/procedure								
Med Chips 0 48 23 Bags Poured								
0. CASING/LINER:								
(nominal) (ft) (ft) Schedule Material Cesing Liner Threaded Welded								
6" +2 108 .250 Steel								
Was drive shoe used? X Y N Shoe Depth(s) 108								
9. PERFORATIONS/SCREENS:								
Perforations Y X N Method								
Manufactured screen XY IN Type Jonnson	RECEI	IVED						
Method of installation Set In								
From (ft) To (ft) Slot size Number/ft Diameter (nominal) Material Gauge or Schedule	APR 15	5 2013						
110 120 20 5" Stainless 304								
	WATER REAL	DURCES						
	Completed Depth (Measurable) WESTERNS	123						
Length of Headpipe 4' Length of Tailpipe 3'	Date: Started 3/29/2013 Complete	.d 4/2/2013						
Packer X Y N Type K-Packer	14. DRILLER'S CERTIFICATION							
10. FILTER PACK:	/we cerury that all minimum well construction standards the time the rin was removed.	were complied with at						
Filler Material From (ft) To (ft) Quantity (bs or ft ³) Placement method	Company Name Can-Ada Well & Pump Co.	Co. No. 304						
	Division Ford Chinese Const VLI							
Principal Driller Lari Skunner Far Kunner Far Kunner Far Kunner								
	Driller	Date						
Prowing Anesian ? LIT VIN Anesian Pressure (PSIG)	Operator Brad Skinner	Date 4/11/2013						
Describe coulto) device		Data						
		Dale						

* Signature of Principal Driller and rig operator are required.

Form provided by Forms On-A-Disk - (214) 340-9429 - www.FormsOnADIsk.com

Form	238-7
9/82	

STATE OF IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

USE TYPEWRITER OR BALLPOINT PEN

VVELL DAILLE State law requires that this report be filed wit within 30 days after the comple	th the E etion o	Directo or abanc	r, Depa donmen	URI Intment of Water Resources Int of the well.	plot gr	9	
1. WELL OWNER	7.	WAT	ERLE	VEL			
Name RebekA Fredricks		Static	water	level <u>30</u> feet below lar	nd surface.		
Address Raise ID		Flowi Artes	ing? D ian clos	Yes XNo G.P.M. flo	w		-
Owner's Permit No. 62-88-6-02-8		Contr Temp	olled b	y: Valve Cap] Plug		-
	╞		Desi	cribe artesian or temperature zones	below.	_	
2. NATURE OF WORK	8.		LTESI		0.t		
Abandoned (describe abandonment procedures such as			mp		Uther	beer	
materials, plug deptns, etc. in litnologic logy		al a	5	· Fulliping Level	2		
2 PROPOSED USE							
	-						
Industrial Stock Waste Disposal or Injection	9. Bore	De	OLOGI	IC LOG		Wa	ter
Other (specify type)	Diam.	From	To	Material		Yes	No
4. METHOD DRILLED	6	2	26	Black SAND			Ŕ
Rotary Air Hydraulic Reverse rotary Other		26	30	GRAVEL SAND / GRAL	.0	×	×
Cable U Dug U Otner		-	-			P	
5. WELL CONSTRUCTION		_	-			-	F
Casing schedule: Steel Concrete Other							-
_250 inches _6 inches + _/_ feet 52 feet					1. er-		
inches inches feet feet		-					-
inches feet feet feet							
Was casing drive shoe used? ★Yes □ No Was a packer or seal used? ★Yes □ No						-	
Perforated?							
How perforated? Factory Knife Torch Size of perforation inches inches						-	
Number From To						-	
perforations feet feet		-		00	14 miles (14		
perforations feet feet		-				i	
Well screen installed? X Yes D No Manufacturer's name						-	
Type 305 Model No.					2		-
Diameter Slot size 22 Set from 52 feet to 57 feet	50	-	com.		star Perceutees		
Gravel packed? Gravel Yes KNo Size of gravel	+	1.5		- muzaliti	onal Office		-
Placed fromfeet tofeet group feet for the feet of th		27					
Bentonite Puddling clay	1	611	-A	1988			-
Sealing procedure used: Slurry pit Temp, surface casing							
Method of joining casing: Threaded Welded Solvent Weld Weld	Depa	rtmeni	of Wa	ter Resources			
Cemented between strata	10				E.		
Describe access port	10.	Wo	rk start	ed No Mark 88 finished	14 Man	4	88
6. LOCATION OF WELL	11.	DRIL	LERS				
Sketch map location must agree with written location.		I/We	certify	that all minimum well constru	uction standard	ds we	ere
N Subdivision Name		compl	ied witr	h at the time the rig was remov	ed.		
×		Firm N	Vame >	Dennis thops Fi	rm No. 35	2	-
w		Addres	55 20	168 Bentley D	ate I April	2 4	18
Lot No Block No		Cloned	by (Fi	officially No	AR		
S A		Signed	by (i)	and	a way	5	3
County Ada			((Operator)			_
NW 1/ NW1/2 Sec. 3 T. 3 N/8, R. 2 EM.							

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

				~ ~ ~		<u>.</u>		
USE TYPEWRITER OR BALL POINT PEN Department of	of Id f Wate	laho er Res	ource	ß	Location C	orrected by ID	WR T	'o:
WELL DRILL State law requires that this report be filed with t days after the completion	.ER'S	5 RE	artment	of Water	T04N R02I By: mcisc	E Sec. 34 SES ell 2012-08-2	ESW 8	
1. WELL OWNER	7. 1	NATER	LEVEL	WBI.				
Name beed Arrett		Static wi Flowing	ater leve ?	es X	feet below lan No G.P.M Quality	d surface flow		 -
Owner's Permit No		Artesian Controll	closed- ed by	in pressure	p. □ Cap	s.i. C) Plug		
2. NATURE OF WORK	8. V	VELLT	EST DA	TA		۰.		
Kew well Deepened Replacement		3 Pump	r	Bailer		ther		
Abandoned (describe method of abandoning)	-	Discharge	G.P.M.		Draw Down	Hours	umped	1
	F	13		-	75		*****	
3. PROPOSED USE	-			1				
Domestic I Irrigation I Test I Other (specify type)	9.	LITHOL	OGIC I	LOG			-	
[] Municipal [] Industrial [] Stock [] Waste Disposal or Injection	Hole Diam.	From	pth To	0	Materia		Wa Yes	N
4. METHOD DRILLED	9.	9	20	Car and	rente	Gravel	+	Б
Cable Rotory Dug Other	6"	20	53	Cen	ented.	Gravel.	×	2
5. WELL CONSTRUCTION	6.1	62	71	All a	alter O	lay	-	3
Diameter of hole inches Total depth fee	6"	75	76	Jes	ATY2	travel	×	F
Thickness Diameter From To	-							1
inches reet							+	+
inches feet							1	F
inches feet feet feet								F
Was a packer or seal used? Yes KNo Referenced?	-						1	-
How perforated?					0518	03	-	-
Size of perforation inches by inches					en andre a		1	-
perforations feet feet			-				-	+-
perforations feet feet								
Well screen installed? 🛛 Yes 😹 No Manufacturer's name							-	
Type Model No					DEC	SIMPLE	5	F
DiameterSlot sizeSet fromfeet tofeet					ALE O	SUNE		
Gravel packed?	-				JUL	6 1979	1	-
Placed from feet to feet	-	12			Department of	Water D.	1	_
Surface seal depth	H	be-			Western Ri	Bional Ottlog	1	-
Sealing procedure used Starry pit Temporary surface cosing							1	-
Z. Overbore to seel depth	10,			/	,		,	
5. LOCATION OF WELL Sketch map location must agree with written location	w	ork star	ted 6	112/	7.8_finish	ed 6/14	/z8	-
N 1301 Hagel St. Reiss Ida.	H. D	RILLER:		FICATION L	Della	tinner	621	2
Block Ne.	A S	ල්ක් ව ddress igned by	(Firm (sidie	tial	3	lisj	17
County_Ulda		53.	dr (Oper	rotor) Le	meth	ant,	4	-

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

L REGISTER C	۲	• •	* •
12 M N	1965	047882	
	WELL LOG AND	REPORT TO THE	
CTA'	TE DECLAMATION		Rec. 19
JIA	IE RECLAMATION	ENGINEER OF IDANO	Well No Well No Well No
	1.2.1		Permit No.
	3	81	
91	Q	0	(DO NOT FILL IN)
Owner 11	he record	Driller	e.j. Lorg
Address 5-	th & Resigne	ste 1319 Address Rou	test Boise lic. No. 40
Location of Wei	Stringt 3	T ST NK D 2 EN	alo.
	11:7474 acc		
and	_feet N/S, and	_feet E/W from corner of	V4V4 Sec
Water will be	used for Irrigalio	m Total depth of well	4318-
Size of drilled	hole4 "0		er linear foot 10-88
Thickness of ca	ising 14		steel
a ²		42-8"8 1.100	e.g., pipe, concrete, wood.
Diameter, lengt	th and location of casing _	(Casing 12" in diameter and under give i	nside diameter; casing over 12" in diameter
	<i>x</i>		de diaméter.)
Number and siz	re of perforations	located	
from surface of	f ground.		
Other perforati			
If flowing well,	, give flow in c.f.s.	er g.p.m and	shut in pressure
If non-flowing	well, give depth of standir	ng water from surface5	
If flowing well,	describe control works	The second secon	
On pumping te	est delivery was 2-5	c.p.m. er. c.f.s. Drawdowr	was less three 20 ft.
en pemping ie			
	pumped during check was.		afer temp Fahrenho
Length of time	> 0		
Length of time Date of comme	ncement of well Jul	Date of completion	of well Jury 10 = 3 3
Length of time Date of comme Type of well rig	s 71 speed	Date of completion	of well Jury 10 - 5 3
Length of time (Date of comme Type of well rig	g 71 speed	Date of completion	of well Jury 10 - 3 3
Length of time (Date of comme Type of well rig	g 7/ speed	CASING RECORD	of well Surg 10 - 5 3
Length of time Date of comme Type of well rig Diam. Cesing	From To Lange	CASING RECORD	- Seals, Grouting, Etc.
Length of time Date of comme Type of well ri Diam. Cesing H''	From To Lange C 42-0	CASING RECORD	- Saala, Grouting, Etc.
Length of time Date of comme Type of well ri Diam. Cesing H''	From To Lange 0 42-5	CASING RECORD	- Seale, Grouting, Etc.
Length of time Date of comme Type of well ri Diam. Cesing H''	From To Lange 0 42-8	CASING RECORD	- Saala, Grouting, Etc.
Length of time Date of comme Type of well ri Diam. Casing H''	From To Lange 0 42-7	CASING RECORD ************************************	- Seals, Grouting, Etc.
Length of time Date of comme Type of well ri Diam. Cesing H''	From To Lang 0 42-0	CASING RECORD th "Remarks"	- Seals, Graving, Etc.
Length of time Date of comme Type of well ri Diam. Cesing H''	From To Lang 9 7 / Speed From To Lang 0 42-7 GENERAL INF	CASING RECORD Th "Remarks"	of well Jury 10-3-3 - Seals, Grouting, Etc. Water, Etc.
Length of time Date of comme Type of well ri Diam. Cesing H''	From To Lang 9 7 1 Speed From To Lang 0 42 - 0 GENERAL INF	CASING RECORD Th "Remarks"	of well yury / U - 3 . 3 - Soals, Grauting, Etc. Water, Etc.
Length of time Date of comme Type of well ri Diam. Casing H''	From To Lang 9 7 1 Speed From To Lang 0 42-7 GENERAL INF	CASING RECORD Th "Remarks"	of well <u>yury 10-3 3</u> - Seals, Grouting, Etc. Water, Etc.
Length of time Date of comme Type of well ri Diam. Cesing H''	From To Lang 0 42-0 Lang	CASING RECORD th "Romarks" FORMATION – Pumping Test, Quality of	of well yury / U - 3 . 3 - Seale, Grauting, Etc. Water, Etc.
Length of time Date of comme Type of well ri Diam. Cesing H''	From To Lang 0 42-8 GENERAL INF	CASING RECORD th "Remarks" FORMATION - Pumping Test, Quality of S.3 3N 2E	- Seale, Growting, Etc. Water, Etc.

From	To Type of Material	Turne of Mederal-1	Drillin	Drilling Time		
Foot		Hrs.	Min.	Weter-b Forma Ans. Yes	Cash Perfon Ans. Yes	
۵'	30' 50	andy soil			no	no
30'	42-8 50	nd & the small gre	avel		yes	no
		V			0	
		sal				
				- 10		
	**					
				.		
						
		more space is required use Sheet No. 2				

4

WELL DRILLERS STATEMENT

This well was drilled under my jurisdiction and the a	above information is true and correct to the best of my knowledge
and belief.	Signed Jesser toty
NOTARIZATION NOT NECESSARY UNDER NEW LAW	ву
Dated 10	License No. 40
Subscribed and sworn before me thisd	ay of, 19,
	Notary Public
My commission expires	Residing at

CHARGE AND

Form 238-7 6/07

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_0	ノノ
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IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

1. WELL TAG NO. D 0063854	12. ST	TATIC	WATE	R LEVEL and WELL	TESTS:				
Drilling Permit No. 915144 - 863768	Depth first water encountered (ft) 14 Static water level (ft) 25								
Water right or injection well #	Water temp. ("F) Bottom hole temp. ("F) Describe access port								
2. OWNER	Descrip								
Address PO Box 7608	Well test:		Disc	harde or Test duration	Test method:	Fk	owing		
City Bolse State ID Zip 83707	Drawdow	vn (feet)	yield	d (gpm) (minutes)	Pump Bailer A	ir art	esian		
3. WELL LOCATION:	12	25		25 30					
Twp. 3 North 🛛 or South 🗌 Rge. 2 East 🖾 or West 🗌									
Sec. 3 1/4 NW 1/4 SE 1/4									
10 acres 40 acres 160 acres	Water C	Quality	test or (comments:	r obondonmont:				
Lot 43 ° 37 389 (Dec. and Decimal minutes)	Bore		JGIC	LOG and/or repairs o	r abandonment.				
Lang 116 ° 12 100 (Deg. and Decimal minutes)	Dia.	From	To	Remarks, lithology or de	escription of repairs or	W	ater		
Address of Well Site in alley htwn 11th & 12th and Fort & havs	(in)	(ft)	(ft)	abandonment,	water temp.	Y	N		
City Boise	12"	- 0'	21	top soll		-	X		
(Give at least name of road + Diviance to Road or Landmark	12"	3'	7'	brown clay			Î		
Lot Bik Sub. Name	12"	7'	14'	sand coarse			X		
4. USE:	12"	14'	44'	sand & gravel			X		
Other Cathodic Prtection Well	12"	44'	46'	clay brown		X			
5 TYPE OF WORK check all that apply (Replacement etc.)	12"	46'	60'	sand & gravel					
New Well Replacement well Modify existing well	8"	71'	74'	brown clay			X		
Abandonment Other	8"	74'	75'	brown sand		X			
6. DRILL METHOD:	8"	75'	102'	gray clay with hard s	strips		X		
Air Rotary 🛄 Mud Rotary 🛄 Cable 🗌 Other	8"	102'	108'	cracks with white &	gray sand	X			
7. SEALING PROCEDURES	8"	108	115	hard gray clay	woond	V	X		
Seal material From (ft) To (ft) Quantity (lbs or ft ³) Placement method/procedure	8"	121'	133'	hard gray clay	ay sano	^	X		
bentonite 0 60 1,800 lbs poured & tagged	8"	133'	137'	cracks with white gra	av sand	X			
	8"	137'	150'	hard gray clay			X		
Diameter From To Gauge/	8"	150'	151'	cracks		X			
(nominal) (ft) (ft) Schedule Material Casing Liner Threaded Welded						_			
	-		-	HECEN	VED		-		
				A110	-0				
				F.UG 08 2	2012				
	-			WALES DESS					
Perforations V X N Method				WESTERN RE	GION	+			
					GION	-			
Method of installation									
From /ft) To /ft) Stol size Number/ft Diameter Material Course or School up									
(nominal) Material Gauge of Schedule						-	<u> </u>		
		-				-			
	Comple	ted Der	oth (Mea	surable)		_	150		
Langth of Hoodping	Date: S	Started	7-	16-12 C	completed 7-20-12	2			
	14. DF	RILLE	R'S CI	RTIFICATION	_				
10. FILTER PACK:	I/We ce	ertify that	at all mi	nimum well construction sta	andards were complie	ed with a	at		
Filter Material From (ft) To (ft) Quantity (lbs or ft ³). Placement method	the time	e the rig	was re	emoved.	una las o u	C07			
	Compar	ny Nam	e <u>Do</u>	white Right Drilling & Pl	ump, Inc Co. No.	557			
	*Princip	al Drille		Xann A- Ku	Date	1-2	3-1Z		
11. FLOWING ARTESIAN:	*Driller		-	Tan Black	Date Date				
Flowing Artesian?	*Onomi	lor II	1	if f	Pata 7	-7:	2-17		
Describe control device	Operat	1	fac	Juna		L			
	Uperato	IV			Date				

* Signature of Principal Driller and rig operator are required.

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USE TYPEWRITER OR BALL POINT PEN

State of Idaho Department of Water Administration

WELL DRILLER'S REPORT

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Regi.

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

1. WELL OWNER Name albert Lewis con. Static water level 25	n:- East balancian land a	d ma	N	1					
Name albert Lewis con, Static water level 25	Foot holes: land as								
Flowing? Yes	No G.P.M. flow	face	1						
Address Temperature F.	Quality								
Owner's Permit No Controlled by Vah	Artesian closed-in pressurep.s.i. Controlled by Valve								
2. NATURE OF WORK 8. WELL TEST DATA									
Pump Grail	ler 🗆 Other								
Abandoned (describe method of abandoning)	Draw Down	Hours Pu	mped						
		AEQE	_						
	0	39999							
Hole Depth	Material		Wa	ster					
Li Municipal Li Industrial Li Stock Diam. From To	AP SATA	,	Yes	No					
4. METHOD DRILLED	MENTED G	Ravel		F					
Cable Control Rotory Dug Other 6 58 61 Pe	a GRAVEL	A SaND	V						
5. WELL CONSTRUCTION	~~~~~~			-					
Dismeter of hole / inches Total denth / fast				F					
Casing schedule:			1	t					
Thickness Diameter From To	1/053			-					
inches feet feet									
inches inches feetfeet				-					
inches feet feet				-					
Was a packer or seal used? □ Yes □2≁No	Mr. Auror								
Perforated?									
Size of perforation inches by inches				-					
Number From To			_						
perforations feet feet	**************************************								
perforations feet feet		10							
Well screen installed?									
Type Model No	**************************************								
DiameterSlot sizeSet fromfeet tofeet									
Gravel packed? Yes Ko Size of gravel			-	-					
Placed from feet to feet	and the second sec		_						
Surface seal? @ Yes D No To what depth feet			-	-					
Material used in seal Cement grout Puddling clay			_						
6. LOCATION OF WELL									
Sketch map location must agree with written location. 10. Work started	7/finished	11/2/71	-	_					
W E This well was drilled under true to the best of my kn	ATION er my supervision and nowledge.	d this report is	; ~~~	- (#					
6 3 manker IV.	Il Dillins	20	1						
County ADA Driller's or Firm's Name	u state	Number 8360	er 	_					
<u>SEWSER</u> Sec. <u>34</u> , T. <u>4</u> OS, R. <u>2</u> OW Signed By	har 8/	1 6/7 Sate	/	-					

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

Bereng - Brodenston

REPORT OF WELL DRILLER State of Idaho

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

1

WELL OWNER: W. Sun strum Name Address - 15 - 1- 15 Baill 15 Baill 15 Owner's Permit No. NATURE OF WORK (check): Replacement well - New well Deepened Abandoned - Water is to be used for: <u>Mard</u> METHOD OF CONSTRUCTION: Rotary Cable - Dig Other (explain) CASING SCHEDULE: Threaded Welded - "Diam. fromft. toft. "Diam. fromft. toft. "Diam. fromft. toft. "Diam. fromft. toft. Thickness of casing:5050 Material: Steel concrete wood other -	Size of drilled hole:
(explain) PERFORATED? Yes 🗌 No 🕅 Type of perforator used:	
Size of perforations: " by " perforations from ft. to	
Diam. Slot size Set from ft. to ft. CONSTRUCTION: Well gravel packed? Yes No. Size of gravel Gravel placed from ft. to ft. Surface seal provided? Yes No To what depth? 20 ft. Material used in seal: Kanzanie	
Did any strata contain unusable water? Yes No Type of water: Depth of strataft. Method of sealing strata off:	
Surface casing used? Yes No. X Cemented in place? Yes No X Locate well in section	
	Work started: Work finished 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: Address: Signed by:
LOCATION OF WELL: County U.S. 2 ST & N W Sec. 3 T. 3 N/Ø R. 2 E/Ø Use other side for Use other side for	Additional remarks
tan 9 - 2 Ser 20	USGS



REPORT OF WELL DRILLER State of Idaho

6 D

State	of Idaho	
State law requires that this report sha Engineer within 30 days after completion or a	Department of Keclaman Ll be filed with the State Reclamation abandonment of the well.	DA
WELL OWNER: W. M.C. Laughlin Name M. W. M.C. Laughlin Address 1418 - N. 2014 Horn	Size of drilled hole: depth of well: level below ground: Temp.	
Brink Idalo	or of Pump? Bail	5pm
Owner's Permit No.	- Size of pump and motor used to make test	c:
NATURE OF WORK (check): Replacement well	Length of time of test: 2 Hrs. Mi	.n.
Water is to be used for: Lawn	Drawdown: 5 ft. Artesian pressure: ft	•
METHOD OF CONSTRUCTION: Rotary Cable	or gpm. Shutoff pressure:	•
(explain)	No control Does well leak around car	ing?
CASING SCHEDULE: Threaded Welded X <u>H</u> ""Diam. from 0 ft. to <u>40</u> ft.	Yes No MATERIAL 4042	EL R
"Diam. from ft. to ft.	FROM TO YES	OR NO
"Diam. from ft. to ft.	0 2' top soil	
Thickness of casing: , 237 Material:	2' 18', Dand	X
Steel X concrete Vood V other	18:24 sand	
	24 40 gravet	
(explain)		
PERFORATED? Yes No X Type of		
perforator used:		
Size of perforations: " by "	·	
perforations from ft. to ft.		·····
perforations from ft. to ft.		
perforations fromft. toft.		
perforations from ft. to ft.		
Manufacturer's name		
Type Model No.		
DiamSlot sizeSet fromft. toft		
DiamSlot sizeSet fromft. toft		
CONSTRUCTION: Well gravel packed? Yes		
No. Size of gravel Gravel		
provided? Yes No Y To what depth?		
ft. Material used in seal:		
Did any strata contain unusable water? Yes	[
No. [A Type of water:		
strata off:		
	·	
Comented in place? Yes No.		
Cemented IN Place: ISP [] NO []		
Locate well in section		
 ++	Work started: May 24 - 1967	
	Work finished: Man 26 - 19671	
Sec	drilled under my supervision and this we	Port
	is true to the best of my knowledge.	2
	Name: Garner Allary	
	Address: M #1 Star, I Lda	1
	Signed by:	
	License No. 37 Date: May 30	-176
LOGATION OF WELL: County Conde		
- <u>A</u> Sec. <u>S</u> T. <u>S</u> N/ B R. <u>A</u> E/ S	/	
Use other side for	additional remarks	

Location Corrected by IDWR To: T03N R02E Sec. 3 NESWNE REPORT OF WELL DRILLER By: mciscell 2012-09-06 State of Idaho State law requires that this report shall be filed with the State Reclamation Engineer within 30 days after completion or abandonment of the well. 4" Size of drilled hole Total WELL OWNER: Mc Lean depth of well: <u>63</u> Standing water level below ground: <u>37</u> Temp. Fahr. <u>50</u> ° Test delivery: <u>35</u> gp or <u>cfs</u> Pump? <u>Bail</u> Size of pump and motor used to make test: Name 103 Address gpm Boise Owner's Permit No. NATURE OF WORK (check): Replacement well New well X Deepened Abandoned Length of/time of test: One Hrs. 30 Min. Drawdown: ft. Artesian pressure: ft. Water is to be used for: domestic Give flow_____cfs above land surface or gpm. Shutoff pressure: Controlled by: Valve Cap Plug No control Does well leak around casing? METHOD OF CONSTRUCTION: Rotary Cable X Dug 🗌 Other (explain) Welded X 63 ft. CASING SCHEDULE: Threaded Yes No MATERIAL 038435WATER ft. to 63 DEPTH "Diam. from O' "Diam. from ft. to ft. FROM TO YES OR NO "Diam. from "Diam. from FEET FEET ft. to ft. 2 ft. to 0 ft. to sandy Thickness of casing: 1250 Material: Coorse and 1.4 Steel 🚺 concrete 🛄 wood 🔲 other 🛄 ō 26 31 (explain) lay streaks an PERFORATED? Yes D No X Type of sila perforator used: Size of perforations: " by perforations from ft. to ft. perforations from ft. to ft. 33 per 50 perforations from over ft. to ft. ft. to No K perforations from Yes WAS SCREEN INSTALLED? 50 63 brown Coarse sand Manufacturer's name grover hea Model No. Type Diam. Slot size Set from ft. to ft. Diam. Slot size Set from ft. to ft. Set from CONSTRUCTION: Well gravel packed? Yes No. X size of gravel Grave placed from ft. to ft. Surface see provided? Yes X No To what depth? 30 ft. Material used in seal: Clay Gravel ft. Surface seal Did any strata contain unusable water? Yes No. X Type of water: Depth of strata_____ft. Method of sealin ft. Method of sealing strata off: Surface casing used? Yes No. Cemented in place? Yes 🔲 No 🛛 Locate well in section Work started: May 30-1969 Work finished: 9une - 5-1969 Well Driller's Statement: This well was - Sec drilled under my supervision and this report is true to the best Name: Sprest of my knowledge. Address: R#1 Signed by: Date: June 9-1969 License No. 39 ada LOCATION OF WELL: County NE * NE * Sec. 3 T. 3 N/4 R. 21 E/2 Use other side for additional remarks 44 USGS

 $\frac{2i}{2}$

Use Typewriter or Ball	REPC	DRI	4	8837	Inspected by Twp RgeSec	2 24	
. DRILLING PERMIT NO. 63-95-W-0507 -000	_ 11. W		TES	TS:	Lat: : Long: :	:	
	Yie	Id gal./n	nin.			Time	
	G	20			NO		
Idress 1520 N. 5TH	-				NO	EST	
ty BOISE State IDZip 83702				L			
LOCATION OF WELL by legal description:	Water Water	Temp Qualit	y test o	or comments:	Bottom hole to	emp	
ketch map location <u>must</u> agree with written location. N	12. LI	тно	LOG	IC LOG: (De	Depth first Water Encount escribe repairs or abandonme	ered nt) _V	Vater
Twp3 North 🕅 or South 🗆	Bore Dia,	From	То	Remarks: Lith	iology, Water Quality & Temperatu	re Y	N
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S Long: : :	6"	49	63	TAN CO	ARSE QUARTZ SAND	YES	+
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	I/We ce	ertify th	nat all	minimum well	construction standards were cor	nolied v	with at
	the time	e the r	ig was	removed.			
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STATIC WATER EVEL OR ARTERIAN DECOUDE	Firm Na	ame_		A	Firm	NG. <u>4</u>	
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introl devices:	Supervi	isor o	Opera	atoh	Proste 7-	17	-9
				(Sign once	e if Firm Official & Operator)		3

FORWARD WHITE COPY TO WATER RESOURCES

Location Corrected by IDWR To: T03N R02E Sec. 3 NWNWNE REPORT OF WELL DRILLER By: mciscell 2012-09-06 State of Idaho Diff or State law requires that this report shall be filed with the State Reclamation Ingineer within 30 days after completion or abandonment of the well. Size of drilled hole: 4" Total depth of well: 59 - 24 Standing water level below ground: 35' Temp. Fahr. 50° Test delivery: 18 gpm or cfs Pump? Bail Size of pump and motor used to make test: Draw horse submersile Length of time of test: 2 Hrs. Min. VELL OWNER: lame 16 Iddress gpm orde wner's Permit No. NATURE OF WORK (check): Replacement well Length of time of test: 2 Hrs. Min Drawdown: <u>16</u> ft. Artesian pressure: ft. above land surface____Give flow____cfs lew well X Deepened Abandoned Min. later is to be used for: domestic METHOD OF CONSTRUCTION: Rotary Cable gpm. Shutoff pressure: or Controlled by: Valve Cap Plug No control Does well leak around casing?)ug 🗌 Other (explain) X. ASING SCHEDULE: Threaded Welded <u>4</u> "Diam. from <u>O</u>" "Diam. from ft. to 59-DEPTH MATERIAL WATER ft. to ft. FROM TO YES OR NO FEET FEET "Diam. from ft. to ft. "Diam. from ft. to ft. 0125 Coarse sandy Thickness of casing: .237 Material: mile Steel 🔀 concrete 🔲 wood 🛄 other 🗌 25 rove (explain) PERFORATED? Yes D No X Type of perforator used: " by Size of perforations: ft. ft. to perforations from perforations from ft. to ft. ft. to ft. perforations from ft. to perforations from ft. VAS SCREEN INSTALLED? Yes No Manufacturer's name Model No. Lybe Slot size Set from ft. to Slot size Set from ft. to Diam. ft Diam. ft CONSTRUCTION: Well gravel packed? Yes No. Size of gravel______ Gravel placed from_____ft. to_____ft. Surface sea provided? Yes ______ No X To what depth? ______ft. Material used in seal:______ Gravel ft. Surface seal Did any strata contain unusable water? Yes 🗌 No. Type of water: Depth of strata ft. Method of sealing strata off: No K Surface casing used? Yes Cemented in place? Yes Locate well in section Work started: (e) Work finished: 16 16 Well Driller's Statement: This well was Sec . drilled under my supervision and this report is true to the best of my knowledge. Name: Free Richard Address: Signed by: 4 uno Date: License No. de LOCATION OF WELL: County SW * N.E * Sec. 3 T. 3 N/ R. 2 E/S Use other side for additional remarks

USGS

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 \circ Ida County Sot 19-Blk. 21- Hyde Park add. file Book of plats page 19 . e de la companya de l 7 .4.7 а така стала с Постория стала с 3

STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

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. 7. WATER LEVEL 1. WELL OWNER Name Artesian closed-in pressure _____ Controlled by: ___ Valve ___ Cap 163 _ p.s.i. Address St 🖵 Plug Temperature _____ OF. Quality ____ Owner's Permit No. 8. WELL TEST DATA 2. NATURE OF WORK D Pump D Bailer - Air New well □ Other Deepened □ Replacement Abandoned (describe method of abandoning) Discharge G.P.M. Pumping Level Hours Pumped 20 2 3. PROPOSED USE 021604 Domestic D Irrigation D Test D Municipal 9. LITHOLOGIC LOG Industrial Stock UWaste Disposal or Injection Water Depth Hole Other (specify type) Material From To Yes No Di<u>a</u>m. 1 6 4. METHOD DRILLED \$ 34 34 50 > □ Rotary □ Air □ Hvdraulic Reverse rotary -50 61 114 Some Cable Dug Other _ 5. WELL CONSTRUCTION Casing schedule: X Steel
Concrete Other Thickness Diameter inches + 12" feet 66 feet 250 inches inches inches _____ feet ____ feet inches inches feet feet inches _ inches feet feet XYes Was casing drive shoe used? D,No No No □ Yes Was a packer or seal used? Perforated? C Yes How perforated?
G Factory
Knife
Torch Size of perforation _____ inches by ____ inches To Number From feet ____ perforations feet perforations ____feet ____ feet perforations _ feet _ feet No Well screen installed?
 Yes Manufacturer's name_____ Туре Model No.
 Diameter
 Slot size
 Set from
 feet to

 Diameter
 Slot size
 Set from
 feet to
 feet feet to feet Gravel packed?
Ves No Size of gravel Placed from _ feet to feet Surface seal depth 18 " Material used in seal:
Cement grout Puddling clay Well cuttings Sealing procedure used: Slurry pit D Temp. surface casing Overbore to seal depth Method of joining casing: D Threaded D Welded D Solvent Weld Cemented between strata 10 Describe access port Work started 4-18-78 finished 4-20-78 63 6. LOCATION OF WELL 11. DRILLERS CERTIFICATION Sketch map location must agree with written location. I/We certify that all minimum well construction standards were N complied with at the time the rig was removed. Subdivision Name Firm Name BU fungy Dr. LEFirm No. 201 w Address 2950. Lot No. _____ Block No. _ Signed by (Firm Official) S and County ____ ada (Operator) 1/4 SW1/4 Sec. 4 N/2018. 2 EAD

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

Form 238-7	\wedge
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IDAHO DEPARTMENT OF WATER RESOURCE WELL DRILLER'S REPORT

سيندي المادين

Location Corrected by IDWR To: T03N R02E Sec. 3 NENW

By: segbert 2012-02-27

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10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

35 ft. below gr	ound	Artesian	press	surelb.
Depth flow encoun	tered_		_ft.	Describe access port or
control devices:	w	el se	41	

	Bailer	Air 🗀 Flowing A	rtesian
Yield gal./min.	Drawdown	Pumping Level	Time
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		l	
r Temp	Bot	tom hole temp.	

Water Quality test or comments:....

lore Na,	From	то	Remarks: Lithology, Water Quality & Temperature	Y	N
6	D	3	TopSail		X
	3	10	HALD PAN		X
	10	37	Gravel		X
	37	72	GIAND	X	
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13. DRILLER'S CERTIFICATION

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

Firm NameDennis Phipps Well Drill Firm No332

Firm Official Da Long Date 5-55	
and I D = = = = = = = = = = = = = = = = = =	-
Supervisor or Operator_ Mart Philop Date 2-3-75	_
(Sign once if Firm Official & Operator)	

FORWARD WHITE COPY TO WATER RESOURCES

Form 238-7 3/95-C96

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

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77177

Other IDWR No. D0019366 Yiel 2. OWNER: Yiel Name Mike & Genille Steiner Address 1903 N 9 th St City Boise State ID Zip §3702 3. LOCATION OF WELL by legal description: Wa Sketch map location must agree with written location Wa W Twp. 3 North 🖾 or South 🗌 Rge. 2 East 🖾 or West 🗌 Sketch map location must agree with written location Wa W Gov't lot County Ada IO". Gov't lot Gov't lot Lat: Long: Gov't lot Second of test name of road + Distance to Road or Landwark) Gov Lt. 8 Blk. 14 Sub. Name Hyde Park Addition Gov Thermal Mincicpal Monitor	1. D	RILL	,IN(G PE	RMIT	NO			11.
2. OWNER: If	Othe	er ID\	VR	No. J	D00193	66			Cart
Name Mike & Genille Steiner 12 J Address 1903 N 9 th St	2.0	WNF	R:						Tield
Address 1903 N 9th St State ID Zip 83702 Wa Stech map location must agree with written location N Wa W Twp. 3 North I or South I Wa W Twp. 3 North I or South I Wa W Twp. 3 North I or South I Wa W Twp. 3 North I or South I Wa W Twp. 3 North I or South I Wa W Sec. 3 1/4 SW 1/4 NE 1/4 IoT Sec. 3 1/4 SW 1/4 NE 1/4 IoT County Ada 10" 10" 6" City Boise Gor't lot County Ada 10" 6" City Boise City Boise 6" 6" 6" 6" I.t. 8 Blk 14 Sub. Name Hyde Park Addition 6" 6" 6" J.test name of road + Distance to Road or Laadutakb 6" 6" 6" 6" Lt. 8 Blk 14 Sub. Name Hyde Park Addition 6" 6" 6" J.test name of road + Distance to Road or Laadutakb 6" 6" <td< td=""><td>Nam</td><td>e Mil</td><td>kę &</td><td>k Ger</td><td>nille Ste</td><td>einer</td><td></td><td></td><td>13 0</td></td<>	Nam	e Mil	kę &	k Ger	nille Ste	einer			13 0
City Boise State ID Zip 83702 Wa 3. LOCATION OF WELL by legal description: Wa Sketch map location must agree with written location Wa N Twp. 3 North X or South I Wa W Image: 2 East X or West I Bore Rge. 2 East X or West I Bore Scc. 3 1/4 SW 1/4 NE 1/4 10° Interest for west I Interest for west I Bore Scc. 3 1/4 SW 1/4 NE 1/4 Interest for west I Interest for west I Interest for west I Bore Address of Well Site 1903 N 9 th St 6" 6" 6" City Boise 6" 6" 6" 6" Kt use: Interest name of road + Distance to Road ot Lachuskito 6" 6" Lt & B Blk 14 Sub. Name Hyde Park Addition 6" 4. USE: Monitor I Irrigation 6" 6" Material Injection Other 6" 5. TYPE OF WORK check all that apply (Replacement etc.) 6" Material From To Sacks or Pounds <td>Add</td> <td>ress 1</td> <td>903</td> <td>N 9</td> <td>th St</td> <td></td> <td></td> <td></td> <td></td>	Add	ress 1	903	N 9	th St				
3. LOCATION OF WELL by legal description: Wa Sketch map location must agree with written location N Image: Sketch map location must agree with written location N Image: Sketch map location must agree with written location N Image: Sketch map location must agree with written location N Image: Sketch map location must agree with written location N Image: Sketch map location must agree with written location N Image: Sketch map location must agree with written location N Image: Sketch map location must agree with written location N Image: Sketch map location must agree with written location N Image: Sketch map location must agree with written location N Image: Sketch map location must agree with written location N Image: Sketch map location must agree with written location N Image: Sketch map location must agree with written location N Image: Sketch map location must agree with written location N Image: Sketch map location must agree with written location N Image: Sketch map location must agree with written location N Image: Sketch map location must agree with written location N Image: Sketch map location must agree wi	City	Boise					State ID	Zip <u>83702</u>	Wat
Sketch map location N 12. W Image: Sketch map location Twp. 3 North is or South is the state of the state o	3. L	OCA	TIC)N O	F WE	LL by I	egal descrip	tion:	Wat
N Tup. 3 North \boxtimes or South \square Was W Free Rge. 2 East \boxtimes or West \square Bore P Sec. 3 1/4 SW 1/4 NE 1/4 NO S Gov't lot County Ada 10" 10" Address of Well Site 1903 N 9 th St 6" 6" 6" Address of Well Site 1903 N 9 th St 6" 6" 6" Lat: Lat: Long: : 6" Address of Well Site 1903 N 9 th St 6" 6" 6" City Boise 6" 6" 6" 6" Lt. 8 Blk. 14 Sub. Name Hyde Park Addition 6" 6" At rest name of coad + Distance to Road or Laaduatk) 6" 6" 6" At rest name of coad + Distance to Road or Laaduatk) 6" 6" 6" At rest name of coad + Distance to Road or Laaduatk) 6" 6" 6" At rest name of coad + Distance to Road or Laaduatk) 6" 6" 6" At rest name of coad + Distance to Road or Laaduatk) 10ther 6" 6" At restary Cable Mud	Sketa	ch map	p loc	ation	must ag	gee with	n written locati	on	
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W Rge. 2 East \boxtimes or West \square Bore Sec. 3 1/4 SW 1/4 NE 1/4 NE 1/4 10" Lat: i Long: i Address of Well Site 1903 N 9 th St 6" Gov't lot County Ada 10" Lat: i Long: i Address of Well Site 1903 N 9 th St 6" 6" Giv at least name of road + Distance to Road or Laadmatk) 6" Lt. 8 Blk. 14 Sub. Name Hyde Park Addition 4. USE: Municipal Monitor Irrigation Monestic Municipal Monitor G" At USE: Municipal Monitor Irrigation S. TYPE OF WORK check all that apply (Replacement etc.) 6" Mew Well Modify Abandonment Other S. TYPE OF WORK check all that apply (Replacement etc.) 6" Material From To Sacks or Pounds SEALING PROCEDURES SEALING PROCEDURES 90 100 SEALING PROCEDURES Secas or Pounds 100 100 Material From To Sacks or 100			1			wn. 3	North X	or South	
W E Rge. <u>2</u> East <u>1/4</u> SW 1/4 NE 1/4 Bore Sec. <u>3</u> 1/4 SW 1/4 NE 1/4 Item 100° Gov't lot County Ada 10° Lat: i Long: i Address of Well Site 1903 N 9 th St 6° City Boise 6° City Boise 6° City Boise 6° Question and the strain of road + Distance to Road or Landmark) 6° Lt. 8 Blk. 14 Sub. Name Hyde Park Addition 4. USE: 6° Question Domestic Municipal Monitor In Thermal Injection Other 5. TYPE OF WORK check all that apply (Replacement etc.) New Well Modify Abandonment Other 6. DRILL METHOD Sacks or 6° Scal/fill.TER PACK AMOUNT METHOD Material From To Sacks or Material From To Sacks or Material From Sacks or Pounds BENTONITE 1' 20' 11 sa					a l		East M	ar West	Wat
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Lt. 8 Blk. 14 Sub. Name Hyde Park Addition 6" 4. USE: 6" 6" A. USE: 6" 6" Commestic Municipal Monitor Irrigation 6" 7 6" 6" 5. TYPE OF WORK check all that apply (Replacement etc.) 6" 6. DRHLL METHOD Mud Rotary Other 6" 6. DRHL METHOD Mud Rotary Other 6" 7. SEALING PROCEDURES SEAL/FILTER PACK AMOUNT METHOD Material From To Sacks or 9000ds BENTONITE 1' 20' 11 sacks OVERBORE 9. Was drive shoe used? X Y N Shoe Depth(s) 90000 Was drive shoe seal tested? Y M N How? 8. 62' 102' Schop PyC 80 90000 8. CASING/LINER: 90	(Give a	i least ni	une o	froad +	Distance b	o Road or I	andmark)		6"
A. USE:	T + 8		1	BIF	14	Sub	Name Hyde I	Park Addition	6"
4. USE:	L/I. <u>0</u>			- 410		_ Jub.	I value IIyae I	ark Addition	6"
□ Domestic □ Municipal □ Monitor □ Irrigation 6" □ Thermal □ Injection □ Other 6" 6" 5. TYPE OF WORK check all that apply (Replacement etc.) 6" ○ New Well □ Modify □ Abandonment □ Other 6" 6. DRHL METHOD ○ ○ ○ ○ ○ Air Rotary □ Cable □ Mud Rotary □ Other - 7. SEALING PROCEDURES ○ Secks or - - ○ Material From To Sacks or - - ○ Secki or ○ Pounds - - - BENTONITE 1' 20' 11 sacks OVERBORE - - - Was drive shoe used? ♡ Y N Shoe Depth(s) -	A 11	SF.							67
□ Thermal Infinite/parl Other 0 □ Thermal Injection Other 6 ○ New Well Modify Abandonment Other 6 ○ New Well Modify Abandonment Other 6 ○ Abandonment Other 6 6 ○ Abandonment Other 6 ○ Abandonment Other 6 ○ Abandonment Other 6 ○ SEAL/FILTER PACK AMOUNT METHOD Material From To Sacks or Pounds BENTONITE 1' 20' 11 sacks OVERBORE Was drive shoe used? ☑ Y N Shoe Depth(s)	4. Di	э <u>ь</u> . Міп	ome	estio		vicinal	Monitor	T Intimation	6
5. TYPE OF WORK check all that apply (Replacement etc.) S. New Well [] Modify [] Abandonment [] Other			hern	nal		rtion	Other		0
Solution of the original matrix opportion of the production of the second of the s	5. T	VPE	OF	WO	RK che	ck all th	at apply (Replacement etc.)	0
6. DRHLL METHOD	N	lew W	ell [ПМ	odify	Abande	nment Otl	her	
X Air Rotary □ Cable □ Mud Rotary □ Other	6. D	RHI	M	ETH	OD	110414			
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BENTONITE 1' 20' 11 sacks OVERBORE Was drive shoe used? ☑ Y N Shoe Depth(s)							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 6" +2' 73' 250 6" +2' 73' 250 4,5" 62' 102' Sc40 PVC Image: Scale in the state in the	BEN	TONE	TE_		<u>l'</u>	20'	11 sacks	OVERBORE	
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Was drive shoe seal tested? Y X N How? 8. CASING/LINER: Diameter From To Gauee Material Casing Liner Welded Threaded 6" +2' 73' 250 steel Image: Casing Liner Welded Threaded 6" +2' 73' 250 steel Image: Casing Liner Welded Threaded 6" +2' 73' 250 steel Image: Casing Liner Welded Threaded 6'' +2' 73' 250 steel Image: Casing Liner 4,5" 6'' 9. PERFORATIONS/SCREENS Image: Comparison of Tailpipe 9. PERFORATIONS/SCREENS Image: Comparison of Tailpipe 100 100+ 100+ 100+ <tr< td=""><td>Was</td><td>drive s</td><td>shoe</td><td>used</td><td>? 🛛 Y</td><td></td><td>Shoe Depth(s)</td><td></td><td></td></tr<>	Was	drive s	shoe	used	? 🛛 Y		Shoe Depth(s)		
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Diameter From To Gauge Material Casing Liner Welded Threaded 6'' +2' 73' 250 steel Image: Constraint of the cons	8. C.	ASIN	G/1	INE	R:				
6' +2' /3' 250 steel Image: Steel <td>Diame</td> <td>ter Fr</td> <td>m</td> <td>To</td> <td>Gauge</td> <td>Material</td> <td>Casing Liner</td> <td>Welded Threaded</td> <td></td>	Diame	ter Fr	m	To	Gauge	Material	Casing Liner	Welded Threaded	
4.3 02 102 3040 FVC 10 10 10 Length of Headpipe Length of Tailpipe 10 10 10 10 10 9. PERFORATIONS/SCREENS Oato Oato 0ato 0ato 0ato Screens Screen Type 13. 13. 100 100+ 4.5" PVC 10 10 From To Slot Size Number Diameter Material Casing Liner com 82' 102' 100+ 4.5" PVC 10 10 Firm	0" 4 5"	+	2	15	250	steel			
Length of Headpipe Length of Tailpipe 9. PERFORATIONS/SCREENS Condition Image: Screen Size Number Diameter Material Casing Liner 13. From To Slot Size Number Diameter Material Casing Liner Condition 82' 102' 100+ 4.5" PVC Image: Screen Size Number Diameter Material Casing Liner Firm	9.2	-10	-	1194	1 3040	PYC.		H H I	
Length of Headpipe Length of Tailpipe 9. PERFORATIONS/SCREENS Con Ø Perforations Method saw Data Screens Screen Type 13. From To Slot Size Number Diameter Material Casing Liner 82' 102' 100+ 4.5" PVC Image: Screen Type Screen					·*·····				
9. PERFORATIONS/SCREENS Col Ø Perforations Method saw Date Screens Screen Type 13. From To Slot Size Number Diameter Material Casing Liner 82' 102' 100+ 4.5" PVC Ø Firm From Image: Constraint of the state of th	Leng	th of F	Iead	pipe		1	ength of Tail	pipe	
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Screens Screen Type	X P	erfora	tion	s N	Aethod s	aw			Date
From To Stot Size Number Diameter Material Casing Liner 82' 102' 100+ 4.5" PVC Image: Common state		creens	N.	S	creen T	уре			13.
From 10 Slot Size Number Diameter Material Casing Liner 82' 102' 100+ 4.5" PVC Image: Common state	E.c.	1	In	. 0'	1.	In:		<u></u>	I/Wc
	10m	10	SIC	H SIZE	100	A 5	DVC	Casing Liner	com
	04	102	+		1 1001	4.5	FVC		
					0.00077	-			Firm
			L		-				

10. STATIC WATER LEVEL OK ARTESIAN PRESSURE:

 421. below ground
 Artesian Pressure____lb

 Depth flow encountered_____ft.
 Describe access port or control devices:

11. WELL 7	TESTS: mp Bailer	$\square Air \square F$	Long: : :
Yield gal/min.	Drawdown	Pumping Level	Time
75 GPM		90*	15 min
Water Temp.		Bottom hole ter	mp

er Quality test or comments:______ Depth first Water Encountered <u>42'</u>

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore	From	To	Remarks:Lithology, Water Quality & Temp.	Y	N
10"	0'	4'	brown top soil	T	N
10" ·	4'	11'	brown sand & brown clay		Ň
10"	11'	20'	coarse sand		X
6"	20'	26'	coarse sand		N
6"	26'	32'	coarse brown sand & brown clay		Ň
6"	32'	42'	soft brown clay	1	Ň
6"	42'	64'	gravel & sand		r
6"	64'	67'	brown clay	-Ľ)	5
6"	67'	67.5	brown rock	1	Ň
6"	67.5'	74'	gray clay	<u> </u>	Ň
6"	74'	101'	coarse quartz sand	X	Г
6"	101'		blue clay	- <u> </u>	5
·					F
				-	
			· · · · · · · · · · · · · · · · · · ·	-	
				上	
					E
			RECEIVED		
			DEC 0 5 2001	-	
			WATER RESOURCES WESTERN REGION	-	
Con	npleted	Depth	: 102 (Measurable		[
Date	Starte	4 10-19	-01 Completed 10-20-	n I	

13. DRILLER'S CERTIFICATION

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

Firm Name SOS Welldrilling & Pump Co

Firm No. 212

Date 11- 30-01

Date //

Official Supervisor or Operator

(Sign once if Firm Official & Operator)

Date: 11/30/01 Time:2:37 PM

047879



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WELL LOG AND REPORT OF THE STATE RECLAMATION ENGINEER OF IDAHO

Permit No Well No County_ daka	Locate wel	in section
Sumer 11 that to her a Baile		
Address DIT Phanescore and share	NW1/4	NE 1/4
Stargentries des		
Nell location 3/1/2 Thilly tothey At 3 N/2 R-2 E/M		
ize of drilled hole	SW 1/4	SE 1/4
Total depth of wellTotal depth of wellTotal	L	
Give depth to standing water from the ground 32 H. Water temp		
Dn "Pumping Test" delivery wasg.p.m. ore.f.s. Drawdown was	_feet.	
ize of pump and motor used to make test		
ength of time of testhoursminutes.		
f flowing well, give flowc.f.s. org.p.m. and of shut off pressure		
f flowing well, described control works	170)	
Water will be used for Domestic Weight of casing per lines	1 foot 19 #	
historica of racing "/4" Coving material Steel		
(STEEL, CONCRETE, W	000, ETC.)	
Jiameter, length and location of casing	INBIDE DIAMETER; UTSIDE DIAMETER)	· · · · · ·

Diam. From To Length Remarks—seals, grouting, etc. Feet Casing Feet usd Number and size of perforations______located_____feet to_____feet from ground

Date of completion of well May 31-62 Date of commencement of well

S.2 3NDE

63 "

2.

WELL LOG

From Foct	To Feet	Type of Material	Water-bearing Formation Ans. Yes or No	Cuaing Perforated Ana, Yes or No
0	10	dirty sand		
10	30	Coarse		
30	65	Sand some sul gravel	no	
65	75	Blue Clay	no	
15	132	Blue skak	no	
132	137	Coarse white soud	pps	
			0	
		·		
		·		
		e <u>e</u>		
		ка <u>к</u> н		
				·· -
	•	5. i a '		
	2	If more space is required use Sheet No. 2		

WELL DRILLER'S STATEMENT

This well was drilled under my supervision and the above information is true and correct to the best of my know-

ledge and belief.

X. . .

.....

Clayeville. Signed 0 By 12

1962 Dated

License No

Form 238-7 3/95-C96

63

devices: n/a

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

	010	10	
	Office	Use Only	
Inspecte	d by		
Twp	Rge	Sec	
1.1	1/4	1/4	1/4

83984D

				Lat: Long: :	
1. DRILLING PERMIT NO	11.	WELL	TES	TS:	
Other IDWR No. <u>D0046485</u> 63-W-215-001			ump	L] Bailer 🛛 Air 🗌 Flowing Artesian	L
2. OWNER:	Yield	gal/min	Dr	awdown Pumping Level Time	
Name DEAN WORBOIS	11/a		11/1		
Address P.O. BOX 8182			-		
City BOISE, State ID Zip 83707	Wate	er Temp	· · · · ·	Bottom hole temp.	
3. LOCATION OF WELL by legal description:	Wate	er Qualit	ty test o	or comments:	
Sketch map location must agree with written location				Depth first Water Encountered 30'	
N	12.1	LITHO	LOG	IC LOG: (Describe repairs or abandonmer	nt)
Twp 3 North X or South)
Bas 2 East M ar Wast	Wat	er			
W E $E E E E E E E E E E E E E E E E E E$	Bore	From	To	Remarks:Lithology, Water Quality & Temp.	YN
Sec. <u>3</u> 1/4 NW 1/4 NE 1/4	Dia 10	0	2	Brown Dirt	
10 acres 40 acres 160 acres	10	2	20	Brown Clay	
Gov't lot County ADA	10	-	20	Brown Cond & Group	1-163
L at 42:27:82 L angul 16:11:040	0	20	20	Brown Sand & Graver	
Lat:43:37:83 Long:110:11:949	0	30	38	Brown Gravel	
Address of well Site 1809 North 9 St	0	38	42	Brown Gravel	
(Give at least name of road + Distance to Road or Landmark)			-		
Lt. <u>6&7</u> Blk. 7 Sub. Name Hyde Park Addition					
4. USE:		Surger 1	÷		
Domestic Municipal Monitor I Irrigation			100	ē	
5. IYPE OF WORK check all that apply (Replacement etc.)		14 - 11 av. 5.	-)(f	
0. DKILL METHOD				-IVED	
				BECEI	
7. SEALING PROCEDURES	- a - 125			- 611 ⁰ 3	1-11-1
Material From To Stacks or				MAX 39 Cars	-i-i-i
Pounds				No. of Contract of Contract	·
Bentonite 0 20 8 Sacks Overbore				WATER	
				AND STRUCT	
					┥ ─┤
We drive the word $M \times \square$ N Shee Depth(a) 40'					∳∦ {
Was drive shoe seal tested? \square V \square N How?	<u></u>				
e CASINC/LINED.			-		
Diameter From To Gauge Material Casing Liner Welded Threaded			S	CANNED	
6" +2 38' 250 St 🛛 🗆 🖾					
				UG 1 5 2007	
Length of Headpipe Length of Tallpipe					
9. PERFORATIONS/SCREENS	Соп	pleted	Depth	: <u>40 (Me</u> asurable)	
Perforations Method torch	Date	: Started	05/04	/06 Completed 05/04/00	5
Screens Screen Type	13.1	DRILL	ER'S	CERTIFICATION	
From To Stat Size Number Dispeted Metazial Coring Liner	[/We	certify 1	that all	minimum well construction standards were	
25' 40' 26 x1 32 6" St X	comp	olied wit	h at the	e time the rig was removed.	
				and and an	
	Firm	Name 5	SOS W	elldrilling & Pump Co Firm No	n. <u>212</u>
		6. CH		Trail chan ==	10.06
10. STATIC WATER LEVEL OR ARTESIAN	Firm	Official		Date 2	10,00
PRESSURE:	~	- 55	0	Inka	-11 -1X
38 ft. below ground Artesian Pressurelb	Supe	TVISOF O	r Oper:	Date, 7	10-00
Depth flow encountered 30 ft. Describe access port or control				A Sign once it Firm Official & Operatori	

Date: 5/8/2006 Time.2:58 PM

I	2
l	DO

Form 238-7
3/95-C96

IDAHO DEPARTMENT OF WATER RESOURCES Inspected by WELL DRILLER'S REPORT

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0.00		0.1	

Office Use Only

Twp		Rge		Sec	
	1/4		1/4		1/4
Lat:		1	Long:		- · ·

1. DRILLING PERMIT NO	DRILLING PERMIT NO 11. WELL TESTS:								
Other IDWR No. 894048 - 839376 00040590 00042590	Pu		ump	Bailer	🛛 Air 🔲 Flowi	ing Artesia	1		
2. OWNER:	Yield gal/min.		Dr	awdown	Pumping Level	Time		\neg	
Name DEAN WORBOIS	36 gpm		30'	66'		Hr			
Address P.O. BOX 8182	-	-					-	-	
City BOISE State ID Zip 83707	Water Temp. Bottom hole temp.						-		
3. LOCATION OF WELL by legal description:	Water Quality test or comments:						-		
Sketch map location <u>must agree</u> with written location	Depth first Water Encountered 44								
N	12. LITHOLOGIC LOG: (Describe repairs or abandonment)								
Twp. 3 North 🛛 or South 🗌									
Rge. 2 East 🛛 or West	Wat	Water						1	
W E Sec. <u>3</u> <u>1/4</u> <u>NW 1/4</u> <u>NE 1/4</u> <u>10 acres</u> <u>40 acres</u> <u>160 acres</u>		From	10	Remarks: Lithology, water Quality & Temp			Y	N	
		0	2	Brown Dirt				\boxtimes	
Coult lat County ADA	10"	2	16	Brown Clay / Some sandy clay				\boxtimes	
s Governor County ADA	10 16 18		18	Brown & white sand & gravel			П	\boxtimes	
Lat:43:37:83 Long:116:11:949	6 18 30 Brown Clay					\boxtimes			
Address of Well Site 1809 N 9 ^{1H} ST	6	30 44 Brown gravel & sand					\times		
City BOISE	6	44	70	Brown gravel & sand			\boxtimes		
(crive at least name of road + Distance to Road of Landmark)	6	70	84	Blue clay				\times	
Lt. <u>6&7</u> Blk. 7 Sub. Name Hyde Park Addition		84	86	Crack in clay			\mathbb{N}		
4. USE:									
Thermal Injection Other								Pt	
5 TVPF OF WORK check all that apply (Replacement etc.)								_	
New Well Modify Abandonment Ofther									
6 DRILL METHOD						<u>n</u>		C.	
\square Air Rotary \square Cable \square Mud Rotary \square Other					RECEIVE	ы. 			
7. SEALING PROCEDURES						<u> </u>			
SEAL/FILTER PACK AMOUNT METHOD	MAY 11 2000		50						
Material From To Sacks or				TOURCES					
Pounds			WATER HES BEGION		ION		J		
Bentonite 0 18 7 Sacks Overbore					WESTER				
Was drive shoe used? X V N Shoe Depth(s) 83'									
Was drive shoe seal tested? \square Y \boxtimes N How?									
8. CASING/LINER:									
6" VII 82 250 ST Material Casing Liner Welded Intreaded									
			_	1979					
		_			and the second second		-	_	
Length of Headpipe			-		~ ~ ~	11.5		_	
9. PERFORATIONS/SCREENS	Completed Depth: <u>85</u> (Measurable)								
Perforations Method Screen Type	Date: Started <u>04/28/06</u> Completed <u>05/04/06</u>								
	13. DRILLER'S CERTIFICATION								
From To Slot Size Number Diameter Material Casing Liner	I/We	certify t	hat all	minimum we	II construction standa	irds were			
	complied with at the time the rig was removed.								
	Firm Name SOS Welldrilling & Pump Co						irm No. 212		
10 STATIC WATER EVEL OD ADTESIAN	Firm	Official	T	rand s	him	Date 5	-5-	-01	
DESSUDE	Philoret -								
38 fl. helow ground Artesian Pressure lh	Supervisor or Operator Date								
Depth flow encountered ft. Describe access port or control	(Sign once if Firm Official & Operator)								
devices:	Date 5/5/2006 Time 9 50 AM								

Date: 5/5/2006 Time:9 50 AM



APPENDIX C IRRIGATION WATER RIGHT CALCULATION

Using IDWR's online Irrigation Rights Finder mapping system, three irrigation water right places of use were identified as overlapping with the 380 acre area initially identified for use of the transferred water right. These are shown in Figure C-1 below.



Figure C-1 - IDWR Irrigation Rights Finder Map with SUEZ's approximate proposed irrigated area overlayed.



Four irrigation water rights are associated with the three places of use. However, only two of the water rights appear to actually be used within the 380 acre area—the IDWR Irrigation Rights Finder does not appear to correctly depict the place of use of the other two (which share a place of use). Details for these rights are provided in Figures C-2, C-3, and C-4 below.



Figure C-2 - 63-11609: irrigation right; fully within proposed irrigated area; 0.3 acres.



Figure C-3 - 63-10609: irrigation right; partially within proposed irrigated area in NENE of Sec. 3; 0.2 acres.





Figure C-4 - 63-5220 and 63-5221: irrigation right; 2 acres within NWSW of Sec. 2; owned by Veteran's Administration; but IDWR shape appears to be wrong—it encompasses the neighborhood to the north of the Veterans Administration land; result is no acreage included within SUEZ's irrigated acreage calculation

The two irrigation water rights within the 380 acre area (63-11609 and 63-10609) irrigate 0.5 acres. As described in Appendix B, irrigated land comprises approximately 36% of the land area in Boise's North End. Thus, to calculate the amount of land that must be added to the initial 380 acre area to account for the 0.5 acres irrigated under these irrigation rights, 0.5 was divided by the average irrigated acreage in the area of 36%, resulting in 1.4 acres (0.5 / 0.36 = 1.4 acres).