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DISTRICT OF WYOMING

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UNITED STATES DISTRICT COURT
DISTRICT OF WYOMING

UNITED STATES OF AMERICA, Plaintiff, v. J.R. SIMPLOT COMPANY and SIMPLOT PHOSPHATES, LLC, Defendants.	Civil No. 20-CV-125-F CONSENT DECREE

CONSENT DECREE

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WHEREAS, Plaintiff, the United States of America, on behalf of the United States Environmental Protection Agency ("EPA"), ("United States" or "Plaintiff"), has filed a complaint ("Complaint") alleging that Defendants J.R. Simplot Company and Simplot Phosphates, LLC ("Simplot" or "Defendants") have violated the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. §§ 6901 - 6992k, and implementing federal and state regulations, and the Emergency Planning and Community Right-to-Know Act ("EPCRA"), 42 U.S.C. §§ 11001 - 11050, at Simplot's phosphoric acid and fertilizer manufacturing plant located near Rock Springs, Wyoming ("Facility");

WHEREAS, the Complaint includes allegations, disputed by Simplot, that Simplot failed to characterize and illegally treated, stored, or disposed of hazardous wastes from various processes at its Facility, including: the production of granulated fertilizers, such as monoammonium phosphate ("MAP"), and of fluorosilicic acid ("FSA"); wastes generated during cleaning of phosphoric acid, super phosphoric acid ("SPA") and fertilizer plant equipment; wastewaters generated from the manufacture of SPA and from scrubbers used to control air pollution from the phosphoric acid plant; and other chemical and waste management processes at its Facility without a RCRA permit or interim status. The Complaint also alleges, and Simplot disputes, that Simplot illegally placed hazardous wastes in a Phosphogypsum Stack System dedicated for managing phosphoric acid production wastes excluded from hazardous waste regulation pursuant to 40 C.F.R. § 261.4(b)(7) (the "Bevill Exclusion"), thus violating Sections 3004 and 3005 of RCRA, 42 U.S.C. §§ 6924-25, and the applicable regulations in 40 C.F.R. Parts 260-270, as adopted by reference in the Wyoming Hazardous Waste

Management Rules, Chapter 20-3 of Wyoming Administrative Code ("W.A.C."), and that those hazardous wastes remain at the Facility;

WHEREAS, the Complaint includes allegations, disputed by Simplot, that Simplot failed to submit complete annual Form R reports to the toxics release inventory, pursuant to EPCRA Section 313, 42 U.S.C. § 11023, to include certain compounds for reporting years 2004 through 2010, and to include certain additional compounds through reporting year 2013, in violation of 40 C.F.R. § 372.30;

WHEREAS, Simplot and the United States engaged in discussions concerning potential methodologies Simplot could use under EPCRA Section 313 to include in its Form R annual reports that would be intended to provide a reasonable estimate of the quantities of certain metals that the United States contends should be considered to have been manufactured (as a consequence of the digestion of ore), processed (as a consequence of placing metal compounds removed from the production process as a byproduct and reintroducing them into the production process), or released at the Facility. As a result of those discussions, Simplot revised its reporting for its annual Form R reports beginning for reporting year 2011, and further revised its reporting for reporting years from 2014 to the present, based on a methodology intended by Simplot to provide such reasonable estimates consistent with the requirements of EPCRA;

WHEREAS, Simplot denies the applicability of Subtitle C of RCRA and the regulations promulgated thereunder to certain waste and materials management practices at the Facility that are the subject of the Complaint; denies the alleged EPCRA reporting violations that are the subject of the Complaint; denies any non-compliance or violation of any law or regulation identified in the Complaint; and maintains that it has been and remains in compliance with

EPCRA and RCRA, in particular the Bevill Exclusion, and is not liable for civil penalties or injunctive relief as alleged in the Complaint;

WHEREAS, Simplot and EPA voluntarily entered into an Administrative Order on Consent pursuant to RCRA § 3013(a), 42 U.S.C. § 6934(a) ("3013 Order"), whereby Simplot agreed to implement soil, sediment, surface water, and groundwater sampling, analysis, monitoring, and reporting at the Facility in an effort to characterize the source(s) of contamination; characterize the potential pathways of contaminant migration; define the degree and extent of contamination; and identify actual or potential human and/or ecological receptors to fully determine the nature and extent of the presence and/or release of hazardous wastes at or from the Facility;

WHEREAS, in response to the 3013 Order, Simplot designed and implemented soil, sediment, surface water, and groundwater investigation and monitoring work plans at the Facility with the participation of EPA and the Wyoming Department of Environmental Quality ("Wyoming DEQ"). Simplot has completed investigative work under the 3013 Order to characterize the source(s), potential pathways, and the extent of contamination and has submitted reports to EPA and Wyoming DEQ describing Simplot's delineation activities and the results, pursuant to which EPA concluded that Simplot met all the requirements of the 3013 Order and closed the 3013 Order on July 19, 2018;

WHEREAS, the objective of the Parties in this Consent Decree is to resolve the civil claims alleged in the Complaint by establishing certain injunctive relief whereby Simplot shall change certain operating practices with respect to its management of hazardous wastes or process materials and Bevill-Excluded Wastes and implement environmental controls and financial assurance as set forth herein; and, by assessing an appropriate penalty;

WHEREAS, Simplot has conducted itself in good faith in its discussions with the Plaintiff concerning the violations alleged in the Complaint, and has already implemented certain operational changes and corrective measures at and with respect to the Facility, thus obviating certain injunctive relief;

WHEREAS, by agreeing to entry of this Consent Decree, Simplot makes no admission of law or fact with respect to the allegations in the Complaint and continues to deny any non-compliance or violation of any law or regulation identified therein or in this Consent Decree. For the purpose of avoiding litigation among the Parties, however, Simplot agrees to the requirements of this Consent Decree;

WHEREAS, the Parties agree that the United States' filing of the Complaint and entry into this Consent Decree constitute diligent prosecution by the United States, under Section 7002(b)(1)(B) of RCRA, 42 U.S.C. § 6972(b)(1)(B), and Section 326(e) of EPCRA, 42 U.S.C. § 11046(e), of all matters alleged in the Complaint and addressed by this Consent Decree through the date of lodging of this Consent Decree; and

WHEREAS, the Parties recognize, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith and will avoid litigation among the Parties and that this Consent Decree is fair, reasonable, and in the public interest;

NOW, THEREFORE, before the taking of any testimony, without the adjudication or admission of any issue of fact or law except as provided in Section I (Jurisdiction and Venue), below, and with the consent of the Parties,

IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of this action and over the Parties, pursuant to Section 3008(a) of RCRA, 42 U.S.C. § 6928(a); Section 325 of EPCRA, 42 U.S.C. § 11045; and 28 U.S.C. §§ 1331, 1332, 1345, and 1355. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391(b) and 1395(a); Section 3008(a) of RCRA, 42 U.S.C. § 6928(a); and Section 325(b)(3) and (c)(4) of EPCRA, 42 U.S.C. § 11045(b)(3), (c)(4), because the Facility is located in this judicial district and violations alleged in the Complaint are alleged to have occurred in this judicial district. For purposes of this Consent Decree, or any action to enforce this Consent Decree, the Parties consent to the Court's jurisdiction over this Consent Decree and any such action and over Simplot and further consent to venue in this judicial district.

2. Pursuant to Section 3008(a)(2) of RCRA, 42 U.S.C. § 6928(a)(2), notice of the commencement of this action has been given to the Wyoming DEQ.

3. For purposes of this Consent Decree only, Simplot agrees that the Complaint states claims upon which relief may be granted pursuant to Sections 3004 and 3005 of RCRA, 42 U.S.C. §§ 6924 and 6925, and implementing federal and state regulations; and Sections 304 and 313 of EPCRA, 42 U.S.C. §§ 11004 and 11023.

II. APPLICABILITY

4. The obligations of this Consent Decree apply to and are binding upon the United States and Simplot and any successors, assigns, or other entities or persons otherwise bound by law.

5. No transfer of ownership or operation of all or a portion of the Facility, whether in compliance with the procedures of this Paragraph or otherwise, shall relieve Simplot of its

obligation to ensure that the terms of this Consent Decree are implemented, unless: (1) the transferee agrees in writing to undertake the obligations required by this Consent Decree and to be substituted for Simplot as a Party to the Consent Decree and thus be bound by the terms thereof; and (2) the United States consents in writing to relieve Simplot of its obligations pursuant to Section XVII (Modification). At least thirty (30) Days prior to any proposed transfer of ownership, or of Simplot's obligations under this Consent Decree, or such other period agreed to by the Parties in writing Simplot shall: (i) provide a copy of this Consent Decree to the proposed transferee, if not previously provided; and (ii) simultaneously provide written notice of the prospective transfer, together with a copy of the proposed written agreement (subject to Section XIV (Notices) and as may otherwise be agreed in writing) transferring obligations to the transferee, to EPA and DOJ, in accordance with Section XIV (Notices), together with a request for approval. The United States' decision whether to approve the transferee's substitution for Simplot under this Consent Decree and what conditions may attend approval will take into account: (i) the status of the projects in Appendix 6 (Compliance Schedule); (ii) whether the transferee has or will have prior to the transfer the financial and technical capability to comply with this Consent Decree; and (iii) other factors that may be deemed relevant, including but not limited to the environmental compliance history of the proposed transferee and environmental management capabilities of the proposed transferee. Any transfer of ownership or operation of all or a portion of the Facility without complying with this Paragraph constitutes a violation of this Consent Decree.

6. The United States' refusal to approve, or approval with conditions for, the substitution of the transferee for Simplot under this Consent Decree shall be subject to dispute

resolution pursuant to Section X (Dispute Resolution), but any judicial review shall be conducted pursuant to Paragraph 71(a).

7. Simplot shall: (1) provide a copy of this Consent Decree to its President/CEO, Senior Vice Presidents, General Counsel, Vice President for Environmental & Regulatory Affairs and Senior Environmental Counsel, and to the Facility General Manager, Facility Environmental Manager, and Maintenance Manager of the Facility, and shall ensure that any employees and contractors whose duties might reasonably include compliance with any provision of this Consent Decree are made aware of this Consent Decree and specifically aware of the requirements of this Consent Decree that fall within such person's duties; (2) place an electronic version of the Consent Decree on its internal environmental website; and (3) post notice of the lodging of the Consent Decree and its availability in a location at the Facility where legal notices are posted. Simplot shall be responsible for ensuring that all employees and contractors involved in performing any Work pursuant to this Consent Decree perform such Work in compliance with the requirements of this Consent Decree.

8. In any action to enforce this Consent Decree, Simplot shall not raise as a defense the failure by any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Decree.

III. DEFINITIONS

9. Every term expressly defined by this Section shall have the meaning given that term herein, regardless of whether it is elsewhere defined in federal or state law. Every other term used in this Consent Decree that is also a term used under the following statutes and their corresponding regulations shall have the same meaning in this Consent Decree as such term has under these statutes and regulations: RCRA, 42 U.S.C. §§ 6901 – 6992k, and EPCRA, 42

U.S.C. §§ 11001 - 11050. In the case of a conflict between federal and state definitions, federal definitions shall control. For purposes of this Consent Decree, whenever terms defined below are used in this Consent Decree, such definitions shall apply. Additional definitions of terms used in Appendices 1-8 to this Consent Decree are set forth within those Appendices or in Appendix 9:

(a) "3013 Order" shall mean the Administrative Order on Consent, Docket No. RCRA-08-2012-0004, entered into by Simplot and EPA on June 12, 2012, under RCRA Section 3013(a), 42 U.S.C. § 6934(a);

(b) "Acid Value Recovery System" shall mean the Acid Value Recovery Tanks and wash solution system together with the Acid Value Recovery Units, pumps, piping and controls to enable Simplot to manage and recover the value of cleaning wastes or other materials, as described in Section VI (Compliance Projects) of Appendix 4 (Facility Report);

(c) "Acid Value Recovery Tanks" shall mean the tanks and associated wastewater supply piping and return piping that enable the receiving and recirculating of cleaning wastes or other materials from Acid Value Recovery Units, as identified in Section VI (Compliance Projects) of Appendix 4 (Facility Report);

(d) "Acid Value Recovery Tank Effluent" shall mean the output solution consisting of any or all inputs to Acid Value Recovery Tanks that are described in the Facility Report;

(e) "Acid Value Recovery Units" comprise the Acid Value Recovery Tanks and those units in Downstream Operations from which cleaning wastes or other materials may be circulated to the Acid Value Recovery Tanks for management and/or recovery in designated units in Upstream Operations or Mixed-Use Units or reused as a cleaning solution following completion of relevant compliance projects, as described in Section VI (Compliance Projects) of Appendix 4 (Facility Report);

(f) "Bevill-Excluded Wastes" shall mean Phosphogypsum and Process Wastewater from phosphoric acid production through mineral processing, which, under 40 C.F.R. § 261.4(b)(7)(ii)(D), (P), are among the solid wastes excluded from hazardous waste regulation pursuant to the Bevill Exclusion;

(g) "Complaint" shall mean the complaint filed by the United States in this action;

(h) "Consent Decree" shall mean this Consent Decree and all Appendices identified in Section XXIV (Appendices) and attached hereto;

(i) "Corrective Action Work" shall mean the activities described in Section IV of Appendix 1.A (Groundwater Requirements) and/or other activities taken at the express direction of EPA pursuant to its legal authorities to address a release into the environment of (1) the following products, including intermediates and wastes: phosphoric acid, sulfuric acid, and FSA; (2) SACS, including entrained wastes and solids; (3) Process Wastewater, including mixtures and entrained wastes and solids; and (4) Phosphogypsum Stack System Wastewater, including mixtures and entrained wastes and solids. Corrective Action Work does not include other activities to be taken at the direction of EPA pursuant to its residual authorities to address other releases of hazardous waste and/or hazardous constituents that may affect human health and the environment, which directions and activities will be undertaken outside of, and will not be subject to, this Consent Decree;

(j) "Day" shall mean a calendar day unless expressly stated to be a business day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next business day;

(k) "DOJ" shall mean the United States Department of Justice and any of its successor departments or agencies;

(l) "Downstream Operations" shall mean all Facility operations involving the storage, management, transport, treatment, disposal, or further processing of the First Saleable Product, manufacturing operations that use the First Saleable Product as a feedstock, and certain FSA operations, except for units designated as a Mixed-Use Unit, Acid Value Recovery Units, or SPA Recovery Units, as described in the Facility Report;

(m) "EPA" shall mean the United States Environmental Protection Agency and any of its successor departments or agencies;

(n) "Effective Date" is defined in Section XV (Effective Date);

(o) "Facility" shall mean Simplot's manufacturing plants, Phosphogypsum Stack Systems, and such other contiguous or adjacent property owned and/or operated by Simplot, at the following location: approximately 5 miles southeast of Rock Springs, Wyoming, as delineated in Appendix 3 (Site Maps);

(p) "Facility Report" shall mean the report dated May 14, 2020, and attached hereto as Appendix 4, prepared by the Parties and reflecting EPA's inspections of Simplot's Rock Springs Facility, which identifies the Facility's Upstream Operations and Downstream Operations, Acid Value Recovery System, SPA Recovery Units, Mixed-Use Units, compliance projects, and proposed future installations;

(q) "Financial Assurance" shall mean a written demonstration of financial capability or establishment of a financial mechanism (i.e., third-party mechanism(s) for the benefit of EPA in compliance with the terms of Appendix 2 (Financial Assurance)), to implement closure of the Phosphogypsum Stack System and long-term care, or any future Corrective Action Work if required under Paragraph 22 (Site Assessment, Groundwater Monitoring, and Corrective Action Work), in an amount at least equal to the cost estimate for said activities, and to provide for third-party liability as required under Appendix 2;

(r) "First Saleable Product" shall mean:

(1) Merchant Grade Acid (MGA), whether or not it is actually placed into commerce; or, if applicable,

(2) any intermediate phosphoric acid product with a P_2O_5 content less than or equal to MGA that is diverted from further processing into MGA in order to be placed into commerce, further concentrated above 54% P_2O_5 (by weight), or used as a feedstock in manufacturing MAP/ DAP, SPA, purified acid, or other chemical manufacturing products, as alleged in the Complaint but denied by Simplot;

(s) "FSA" shall mean Fluorosilicic Acid (H_2SiF_6);

(t) "Granulation" shall mean the process of converting liquid phosphoric acid, ammonia, secondary nutrients, and/or micronutrients into solid ammonium phosphate fertilizer in Downstream Operations;

(u) "Granulation Recovery System" shall mean the Granulation recovery tanks and wash solution system together with the Granulation Recovery System Units, a sump, collection tank(s), pumps, and piping to enable Simplot to recover the value of cleaning wastes or other materials in the Granulation plant and recirculate the wash solution between the Granulation Recovery System Units and the Granulation Recovery System, and/or to consume the wash solution in the Granulation plant, as specified and identified in Section VI.B.2 Project Operations of Appendix 4 (Facility Report);

(v) "Granulation Recovery System Units" comprise the Granulation recovery tank(s) and those units in Granulation from which, as set forth in the Facility Report, cleaning wastes or other materials will be circulated to the Granulation recovery tanks for recovery or reuse as a cleaning solution in the Granulation plant or sent directly to Granulation for recovery;

(w) "Interest" shall mean the interest rate specified in 28 U.S.C. § 1961;

(x) "Leachate" shall mean liquid or drainable pore water that has passed through or emerged from Phosphogypsum and which may be deposited or collected within the Phosphogypsum Stack System or in a seepage collection drain;

(y) "MAP/DAP" shall mean monoammonium phosphate and diammonium phosphate, which are manufactured in Granulation;

(z) "Merchant Grade Acid" ("MGA") shall mean phosphoric acid that is typically 52% to 54% (by weight) of P_2O_5 but may vary slightly across the phosphoric acid industry, manufactured from the direct reaction of phosphate rock and sulfuric acid and containing less than one percent (1%) solids content;

(aa) "Mixed-Use Unit" shall mean a pollution control device, pipe, tank and/or other production, storage, or transportation unit specifically identified in either of Sections V or VIII of Appendix 4 (Facility Report) as serving both Upstream Operations and Downstream Operations;

(bb) "Non-Hazardous Aqueous Cleaning Solution" ("NHACS") shall mean an aqueous solution, including without limitation fresh water, non-hazardous condensate, non-hazardous recycled water, and non-hazardous recovered groundwater, used for cleaning pipes, tanks, or other equipment that, if evaluated as a solid waste before use, is not a RCRA listed or characteristic hazardous waste as defined by 40 C.F.R. Part 261, Subparts C and D;

(cc) "Paragraph" shall mean a portion of this Consent Decree identified by an arabic numeral;

(dd) "Parties" shall mean the United States and Simplot;

(ee) "Phosphogypsum" shall mean calcium sulfate and byproducts produced by the reaction of sulfuric acid with phosphate rock, or by the reaction of sulfuric acid with fluoride acids such as fluoride process condensate ("FPC") with phosphate rock, to produce phosphoric acid. Phosphogypsum is a solid waste within the definition of Section 1004(27) of RCRA, 42 U.S.C. § 6903(27);

(ff) "Phosphogypsum Stack" shall mean any defined geographic area associated with a phosphoric acid production plant in which Phosphogypsum is managed, disposed of, or stored, other than within a fully enclosed building, container, or tank;

(gg) "Phosphogypsum Stack System" shall mean the land-based geographic area identified in Appendix 3 (Site Maps), associated with a phosphoric acid production plant in which Phosphogypsum and Process Wastewater (and Leachate) are managed, disposed of, treated, or stored, together with all pumps, piping, ditches, drainage, conveyances, water control structures, collection pools, return (cooling/surge) ponds (including former return ponds), collection ponds, basins, auxiliary holding ponds, evaporation ponds, and any other collection or conveyance system associated with the transport of Phosphogypsum from the phosphoric acid plant to the Phosphogypsum Stack, its management at the Phosphogypsum Stack, and the Process Wastewater return to phosphoric acid production and the management (i.e., placement, storage, treatment, or disposal) of the Process Wastewater and Leachate. This definition specifically includes toe drain systems and ditches and other Leachate collection systems, but does not include fully-enclosed buildings, containers, tanks, conveyances within the confines of the phosphoric acid or fertilizer production plant, or emergency diversion impoundments used for the temporary storage of Process Wastewater to avoid discharges in emergency circumstances caused by precipitation events of high volume or duration;

(hh) "Phosphogypsum Stack System Wastewater" shall mean wastewater in the Phosphogypsum Stack System containing Bevill-Excluded Wastes commingled with hazardous wastes, as alleged in the Complaint but denied by Simplot;

(ii) "Process Wastewater" shall mean process wastewater from phosphoric acid production. The following waste streams constitute process wastewater from phosphoric acid production: water from phosphoric acid production operations through concentration to the First Saleable Product; process wastewater generated from Upstream Operations that is used to transport Phosphogypsum to the Phosphogypsum Stack; Phosphogypsum Stack runoff (excluding non-contact runoff); process wastewater generated from any uranium recovery in phosphoric acid production; process wastewater from animal feed production (including defluorination but excluding ammoniated animal feed production) of phosphoric acid operations that qualify as mineral processing operations based on the definition of mineral processing that EPA finalized on September 1, 1989; and process wastewater generated from a superphosphate production process that involves the direct reaction of phosphate rock with dilute phosphoric acid that has a concentration less than Merchant Grade Acid [*see* 55 Fed. Reg. 2322, 2338, January 23, 1990];

(jj) "RCRA Requirements" shall mean the requirements of RCRA Subtitle C, the applicable regulations in 40 C.F.R. Parts 260-270, and Chapter 20-3 W.A.C. §§ 260-68, 270;

(kk) "Section" shall mean a portion of this Consent Decree identified by a roman numeral;

(ll) "Simplot" or "Defendants" shall mean J. R. Simplot Company and Simplot Phosphates, LLC;

(mm) "SPA Recovery Units" shall mean the tanks, equipment, and transfer lines associated with the SPA process identified in Section V (Configuration Equipment Designations) of the Facility Report from which Simplot will recover the value of cleaning wastes or other materials as described in Section VI (Compliance Projects) of the Facility Report and in Appendix 5.A (Minimizing and Addressing Spills and Leaks);

(nn) "Sulfuric Acid Cleaning Solution" (or "SACS") shall mean a solution of sulfuric acid and NHACS, Phosphogypsum Stack System Wastewater, and Acid Value Recovery System Effluent or Process Wastewater used for cleaning pipes, tanks, or other equipment;

(oo) "Sulfuric Acid Plants" shall mean the process units engaged in the production of sulfuric acid, denominated as "the Lurgi Plant" and "the MEC Plant," at the Facility;

(pp) "Superphosphoric Acid" (or "SPA") shall mean liquid phosphoric acid (not a solid phosphate product such as granulated triple superphosphoric acid) generally with a P_2O_5 content greater than MGA, resulting from the concentration of wet process acid that does not involve the direct reaction of phosphate ore in such concentration operations;

(qq) "United States" shall mean the United States of America, acting on behalf of EPA;

(rr) "Upstream Operations" shall mean all phosphoric acid mineral processing operations resulting in the manufacture of the First Saleable Product; and (ss) "Work" shall mean any activity that Simplot must perform to comply with the requirements of this Consent Decree, including Appendices.

IV. CIVIL PENALTY

10. Within thirty (30) Days after the Effective Date of this Consent Decree, Simplot shall pay the sum of $775,000 as a civil penalty, together with Interest accruing from the date on which the Consent Decree is lodged with the Court, at the rate specified in 28 U.S.C. § 1961 as of the date of lodging.

11. Simplot shall pay the civil penalty due by FedWire Electronic Funds Transfer ("EFT") to the DOJ account, in accordance with written instructions to be provided by the Financial Litigation Unit ("FLU") of the U.S. Attorney's Office for the District of Wyoming to Simplot following the Effective Date. The payment instructions provided by the FLU will include a Consolidated Debt Collection System ("CDCS") number, which Simplot shall use to identify all payments required to be made in accordance with this Consent Decree. The FLU will provide the payment instructions to: Alan Prouty, Vice President Environmental & Regulatory Affairs, 1099 W. Front Street, Boise, ID 83702, (208) 780-7365, alan.prouty@simplot.com, on behalf of Simplot. Simplot may change the individual to receive payment instructions on its behalf by providing written notice of such change to DOJ and EPA in accordance with Section XIV (Notices). At the time of payment, Simplot shall send notice that payment has been made: (i) to DOJ via email or regular mail in accordance with Section XIV (Notices) of this Consent Decree; and (ii) to EPA via email at cinwd_acctsreceivable@epa.gov or via regular mail at EPA Cincinnati Finance Office, 26 Martin Luther King Drive, Cincinnati, OH 45268. Such notice shall state that the payment is for the civil penalty owed pursuant to the

Consent Decree in *United States v. J. R. Simplot Company*, and shall reference the civil action number, CDCS Number, and DOJ case number 90-7-1-08388/8.

12. Simplot shall not deduct any penalties paid under this Consent Decree pursuant to this Section or Section VIII (Stipulated Penalties) in calculating its federal or state or local income tax.

V. COMPLIANCE REQUIREMENTS

RCRA

13. Compliance Projects and Schedule. Simplot shall undertake the actions set forth in Appendix 5.A (Minimizing and Addressing Spills and Leaks) and Section VI (Compliance Projects) of Appendix 4 (Facility Report) to change its waste and materials management practices pursuant to the description and schedule set forth in Appendix 6 (RCRA Project Narrative and Compliance Schedule). For any wastes or materials generated by or managed in units that are identified in Section VI (Compliance Projects) of Appendix 4 (Facility Report) as part of the compliance projects set forth in Appendix 6 (RCRA Project Narrative and Compliance Schedule) requiring installation, construction, modification, shut down, or replacement to cease the commingling of hazardous wastes with Bevill-Excluded Wastes, as alleged in the Complaint but denied by Simplot, and for any wastes or materials that will be managed differently as a result of installing, constructing, modifying, shutting down, or replacing units as specified in Section VI (Compliance Projects) of Appendix 4 (Facility Report), Simplot's waste and materials management obligations under this Section V (Compliance Requirements) shall become effective upon completion of those compliance projects.

14. Hazardous Waste Determinations. Except as otherwise provided in this Paragraph, Simplot shall make a RCRA hazardous waste determination, pursuant to 40 C.F.R.

§ 262.11, of all solid wastes generated at the Facility and, if the wastes are hazardous, Simplot shall manage them in compliance with RCRA Requirements. The requirement to make a hazardous waste determination under this Paragraph does not apply to: (a) Bevill-Excluded Wastes, and (b) those wastes or other materials managed in compliance with Paragraphs 15-18, which allow certain wastes or other materials to be (i) input to Upstream Operations or Downstream Operations, (ii) managed via the Acid Value Recovery System, SPA Recovery Units, or the Granulation Recovery System, or (iii) managed with Bevill-Excluded Wastes.

15. Downstream Operations: Wastes or Other Materials. Unless otherwise authorized by this Paragraph or Paragraphs 16-18 below, Simplot shall manage all wastes or other materials generated from Downstream Operations, if determined to be hazardous pursuant to Paragraph 14, in compliance with RCRA Requirements. This provision (subject to what is otherwise authorized by this Paragraph or Paragraphs 16-18 below) applies to all wastes or other materials from Downstream Operations, pollution control devices, cleaning wastes (liquids and solids), and spills and leaks from all Downstream Operations processes and units, regardless of the use of any Bevill-Excluded Wastes as influent to such Downstream Operations. If any units identified in the Facility Report as Mixed-Use Units are replaced, modified, or reconfigured after the date of the Facility Report such that they serve to manage, store, or transport materials from Downstream Operations that are not identified in the Facility Report as being associated with those units, they will be deemed to serve Downstream Operations, such that any wastes or other materials generated thereafter from such units will be subject to this Paragraph.

(a) Simplot may re-use or recover certain wastes or other materials from Downstream Operations in Upstream Operations or Downstream Operations or via the Acid

Value Recovery System, SPA Recovery Units, or the Granulation Recovery System, as specifically documented in the Facility Report.

(b) Simplot may input certain wastes or other materials to Upstream Operations or Downstream Operations directly or via the Acid Value Recovery System, SPA Recovery Units, or the Granulation Recovery System, as described in the Facility Report and in Appendix 5.A (Minimizing and Addressing Spills and Leaks). However, in the event of a process upset after commencement of operations of the Acid Value Recovery System, SPA Recovery Units, and/or the Granulation Recovery System that prevents the input of wastes or other materials from these systems or units into those Upstream Operations or Downstream Operations (as specified by the Facility Report), Simplot shall make a RCRA hazardous waste determination, pursuant to 40 C.F.R.§ 262.11, of the cleaning wastes or other materials generated from those systems or units affected by the process upset. Non-hazardous wastes or other materials from any such process upset may continue to be input to Upstream or Downstream Operations via the Acid Value Recovery System, SPA Recovery Units, or the Granulation Recovery Systems. If the wastes or other materials from any such process upset are hazardous, such wastes or other materials shall be managed in compliance with RCRA Requirements.

16. Upstream Operations: Phosphoric Acid Scrubber Wastes. Liquid wastes from air pollution control devices that are associated with Upstream Operations as identified in the Facility Report, or that are identified as Mixed-Use Units in the Facility Report, may be (a) input to Upstream Operations, or (b) treated, stored, managed, transported, or disposed of together with Bevill-Excluded Wastes, provided that (i) Simplot deposits such wastes only in a Phosphogypsum Stack System subject to and in compliance with the requirements of Appendix 1.A (Groundwater Requirements) and 1.B (Phosphogypsum Stack System Construction and

Operational Requirements) to this Consent Decree, and (ii) EPA has not made a determination that the Financial Assurance provided by Simplot no longer satisfies the requirements of this Consent Decree set forth in Paragraph 26 and Appendix 2 (Financial Assurance), pursuant to Paragraph 21 of Appendix 2.

17. Upstream Operations and Mixed-Use Units: Cleaning Wastes or Other Materials. Wastes or other materials generated from the use of Phosphogypsum Stack System Wastewater, Process Wastewater, or NHACS to clean pipes, tanks, process equipment, or other storage or transport units that: (a) are part of Upstream Operations; (b) serve to manage, store, or transport Bevill-Excluded Wastes that are alleged in the Complaint, but denied by Simplot, to have been historically commingled with hazardous waste; or (c) are identified as a Mixed-Use Unit in the Facility Report, may be (i) input to Upstream Operations, or (ii) treated, stored, managed, transported, and disposed of together with Bevill-Excluded Wastes, provided that Simplot deposits such wastes or other materials only in a Phosphogypsum Stack System subject to and in compliance with the requirements of Appendix 1.A (Groundwater Requirements) and 1.B (Phosphogypsum Stack System Construction and Operational Requirements) to this Consent Decree, and EPA has not made a determination that the Financial Assurance provided by Simplot no longer satisfies the requirements of this Consent Decree set forth in Paragraph 26 and Appendix 2 (Financial Assurance), pursuant to Paragraph 21 of Appendix 2, and further provided that Simplot manages the wastes or other materials in accordance with Appendix 5.A (Minimizing and Addressing Spills and Leaks).

18. Acid Value Recovery System: Wastes or Other Materials Placed Directly in Production Processes.

(a) Prior to commencement of operations of the Acid Value Recovery System, as described in Section VI (Compliance Projects) of Appendix 4 (Facility Report), Simplot may continue to manage wastes or other materials generated from Upstream Operations, Mixed-Use Units, Acid Value Recovery Units, SPA Recovery Units, or units that serve to manage, store, or transport Bevill-Excluded Wastes as specifically documented in its "Consolidated Materials Management Practices" report dated April 17, 2020.

(b) Following commencement of operations of the Acid Value Recovery System as described in Section VI (Compliance Projects) of Appendix 4 (Facility Report), the waste streams or other materials specified in Section IV of Appendix 4 (Facility Report) may be input to Upstream Operations and Downstream Operations as described in the Facility Report.

19. Spills and Leaks. Spills and leaks of all grades of phosphoric acid product, sulfuric acid, or other solid wastes from Upstream Operations or Mixed-Use Units are not Process Wastewater and shall be managed in accordance with Appendix 5.A (Minimizing and Addressing Spills and Leaks).

20. FSA.

(a) FSA and wastewater carrying entrained solids from FSA production, both of which are part of Downstream Operations, may be managed as described in Section VI (Compliance Projects) of Appendix 4 (Facility Report).

(b) Hazardous waste solids not entrained in cleaning solutions but instead mechanically removed from FSA production (such as filtration residue, tank bottoms, and filter bags) shall be managed in compliance with the Facility Report and the Best Management Practices (BMP) Plan for Minimizing and Addressing Spills and Leaks, set forth in Appendices 4 and 5.A, respectively.

(c) Wastes generated from FSA production that are not subject to Paragraphs 20(a) and (b) shall be managed in compliance with RCRA Requirements.

21. Sulfuric Acid Plants. Simplot shall manage hazardous wastes generated at the Facility's Sulfuric Acid Plants in accordance with applicable law.

22. Site Assessment, Groundwater Monitoring, and Corrective Action Work. Simplot has already completed and submitted to the United States an interim site assessment report, "Groundwater Investigation Summary Report" (dated April 2016), that details the scope and results of investigations conducted at the Facility as part of Simplot's compliance with the 3013 Order. No Corrective Action Work is required to address the findings of the interim site assessment report. Simplot shall conduct groundwater monitoring and reporting pursuant to Section 3.0-4.0 of the "Groundwater Monitoring Plan October 2018" in Attachment A to Appendix 1.A (Groundwater Requirements). In accordance with Appendix 1.A, based on the results of future groundwater monitoring, Simplot shall notify EPA of any exceedance of Wyoming groundwater standards and any Wyoming-ordered corrective or remedial actions, and perform Corrective Action Work if it is required.

23. Phosphogypsum Stack System. Simplot shall comply with all requirements of Appendix 1 (Operating and Closure Requirements), which requirements are set forth specifically in Appendix 1.A through 1.E.

24. Inspections and Integrity of Tanks, Sumps, and Secondary Containment. Process liquids (aqueous solution of phosphate and sulfate) routed within the Facility shall be managed in

accordance with the scope and provisions of Appendix 5.B (Inspections and Integrity of Tanks, Sumps, and Secondary Containment).

25. Completed Activities. Simplot has already completed the following activities in compliance with the below referenced Consent Decree Paragraphs or Appendices/Attachments to the Consent Decree:

(a) Liners. The Parties agree that the Facility's current Phosphogypsum Stack System liner meets the liner requirements of Appendix 1.B (Phosphogypsum Stack System Construction and Operational Requirements).

(b) Liner Equivalency. The Parties agree that for a proposed expansion of the Facility's Phosphogypsum Stack System, Simplot's proposed HDPE geomembrane liner in contact with sedimented gypsum placed in slurry form, as documented in Appendix 7 (Alternative Liner demonstration), will provide a degree of protection of human health and the environment at least equivalent to the liner requirements of Appendix 1.B (Phosphogypsum Stack System Construction and Operational Requirements), provided that Simplot operates that liner system within its design limits and maintains it in accordance with Appendix 1.B, Sections VI and VIII.

(c) Granulation Recovery System and Granulation Re-slurry System. The Parties agree that Simplot has already constructed and is operating a Granulation Recovery System and a Granulation re-slurry system in its Granulation plant as described and in accordance with the Facility Report.

26. Financial Assurance. Simplot shall secure and maintain Financial Assurance for the benefit of EPA pursuant to the requirements of Appendix 2 (Financial Assurance) of this Consent Decree, in order to ensure coverage for: (a) third-party liability, as described in

Appendix 2; (b) Phosphogypsum Stack System Closure (including long-term care) as required under Appendix 1.C (Closure of Phosphogypsum Stacks/Stack Systems); and (c) Corrective Action Work, if required pursuant to Appendix 1.A (Groundwater Requirements), in which event the Parties agree to modify Appendix 2 to include this requirement. Simplot's inability to secure and/or maintain adequate Financial Assurance shall in no way excuse performance of the Work or any other requirement of this Consent Decree.

27. In addition to the Financial Assurance information included in the reports required pursuant to Section VII (Reporting Requirements) of this Consent Decree, Simplot shall provide to EPA, upon request, any information or reports that Plaintiff is authorized to request pursuant to Section 3007 of RCRA, 40 C.F.R. Part 264, Subpart H, or any other statutory or regulatory information gathering authorities regarding financial mechanism(s) provided by Simplot to meet its obligation for Financial Assurance, and the financial institution or guarantor providing the financial mechanism(s) to secure Simplot's obligations, pursuant to Appendix 2.

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28. Within sixty (60) Days after the Effective Date, Simplot shall revise and resubmit its Form R reports for the Facility required pursuant to 40 C.F.R. § 372.30 for each of the reporting years 2004 through 2013, such that those reports incorporate reasonable estimates of the quantities of hazardous substances manufactured, processed, and/or released at the Facility in accordance with 40 C.F.R. Part 372.

Other Compliance Requirements

29. EPA Review of Submissions. All work plans, reports, and other documents that are developed and submitted to EPA for approval pursuant to this Consent Decree shall be complete and technically adequate. After review of any work plan, report, or other document

that is required to be submitted, or revised and resubmitted, to EPA for approval pursuant to this Consent Decree, EPA shall in writing: (a) approve the submission; (b) approve the submission upon specified conditions; (c) approve part of the submission and disapprove the remainder; or (d) disapprove the submission. In the event of disapproval of any portion of the submission, EPA shall include a statement of the reasons for such disapproval in its response. Plaintiff's receipt or acceptance of information or notice, or approval of a submittal, does not bind Plaintiff to the factual assertions and conclusions of the information, notice, or submittal.

30. If the submission is approved pursuant to Paragraph 29(a), Simplot shall take all actions required by the work plan, report, or other document, in accordance with the schedules and requirements of the work plan, report, or other document, as approved. If the submission is conditionally approved or approved only in part, pursuant to Paragraph 29(b) or (c), Simplot shall, upon written direction from EPA, take all actions required by the approved work plan, report, or other document that EPA determines are technically severable from any disapproved portions, subject to Simplot's right to dispute only the specified conditions, the disapproval, or the determination of the technical severability of portions of the submission under Section X (Dispute Resolution).

31. If the submission is disapproved in whole or in part pursuant to Paragraph 29(c) or (d), Simplot shall, within sixty (60) Days or such other time as the Parties agree to in writing, correct all deficiencies and resubmit the plan, report, or other document, or disapproved portion thereof, for approval, in accordance with the preceding Paragraphs. If the submission has been previously disapproved, EPA may impose an earlier due date for resubmission, but not less than fourteen (14) Days. If the resubmission is approved in whole or in part, Simplot shall proceed in accordance with the preceding Paragraph.

32. Any stipulated penalties applicable to the original submission, as provided in Section VIII (Stipulated Penalties), shall accrue during the sixty (60) Day period or other agreed upon period, but shall not be payable unless the resubmission is untimely or is disapproved in whole or in part; provided that, if the original submission was so deficient as to constitute a material breach of Simplot's obligations under this Consent Decree, the stipulated penalties applicable to the original submission shall be due and payable notwithstanding any subsequent resubmission.

33. If a resubmitted work plan, report, or other document, or portion thereof, is disapproved in whole or in part, EPA may again require Simplot to correct any deficiencies in accordance with the preceding Paragraphs, may itself correct any deficiencies, or may finally disapprove the submission, subject to Simplot's right to invoke dispute resolution under Section X (Dispute Resolution) and EPA's right to seek stipulated penalties under Section VIII (Stipulated Penalties). If the resubmission is approved or corrected in whole or in part, Simplot shall proceed in accordance with Paragraph 30. In the event any work plan, report, or other document that was previously approved by EPA needs to be modified because of (a) material or substantial alterations or additions to the Facility or its operations, (b) the receipt of information that would have justified changes to the submission had the information been available at the time of approval, or (c) new statutory requirements or regulations, EPA may so notify Simplot and require the work plan, report, or other document to be revised in accordance with EPA direction and resubmitted to EPA for approval.

34. <u>Correction of Non-Compliance</u>.

(a) If Simplot determines, with or without notice from EPA, that it is violating, or will violate, any requirement of Section V (Compliance Requirements) other than those set forth in Paragraph 26 (Financial Assurance), Simplot shall submit its report of the violation pursuant to Section VII (Reporting Requirements), and shall subsequently implement a correction plan to rectify the violation ("Correction Plan"), if it has not already corrected the violation by the time of the report. The Correction Plan shall include a schedule for correcting the violation.

(b) In the event of a violation subject to Paragraph 34(a), Simplot nevertheless shall be considered to be in compliance with this Consent Decree for purposes of: (1) continuing to manage those wastes or other materials that Paragraphs 15 through 18 allow to be input to Upstream Operations or Downstream Operations directly or via the Acid Value Recovery System, SPA Recovery Units, Granulation Recovery System Units, or together with Bevill-Excluded Wastes; and (2) assessing Simplot's compliance with this Consent Decree under Paragraphs 36, 79, 80, and 81, provided that: (i) if Simplot deposits wastes or other materials governed by Paragraphs 15-18 in a Phosphogypsum Stack System, it does so only in a Phosphogypsum Stack System subject to and in compliance with the Phosphogypsum Stack System Requirements set forth in Paragraph 23; and (ii) Simplot timely implements and completes its Correction Plan, or refers an allegation of non-compliance with Section V (Compliance Requirements) or with a Correction Plan to dispute resolution pursuant to Section X (Dispute Resolution) and either prevails in dispute resolution or satisfactorily complies with an EPA or judicial directive to correct any instances of non-compliance (collectively, "Continuing Compliance Criteria"). Nothing in this Paragraph shall be construed as EPA approval of Simplot's correction efforts pursuant to this Paragraph, as a waiver of stipulated penalties for the violation pursuant to Section VIII (Stipulated Penalties), or as limiting the rights reserved by Plaintiff under Section VI (Work Takeover) or Paragraph 82. EPA reserves the right to require, upon written request, that a Correction Plan be submitted to EPA for approval in accordance with Paragraphs 29 through 33. Simplot's compliance with this Paragraph is without prejudice to its rights under Section IX (Force Majeure) and Section X (Dispute Resolution).

35. Permits. Where any compliance obligation under this Section requires Simplot to obtain a federal, state, or local permit, or other form of approval, Simplot shall submit timely and complete applications and take such actions as are necessary to obtain all such permits or approvals. A request for supplementation by the permitting agency does not constitute a notice or finding that an application was incomplete for the purpose of this Paragraph unless the permitting agency determines that the original application was so deficient as to constitute a material breach of Simplot's obligations under this Consent Decree. Simplot may seek relief under the provisions of Section IX (Force Majeure) for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if Simplot has submitted timely and complete applications and has taken such actions as are necessary to timely obtain all such permits or approvals.

36. Provided that Simplot remains in compliance with Section V (Compliance Requirements) or the Continuing Compliance Criteria set forth in Paragraph 34(b) at the Facility, the Facility shall not be required to operate as a Treatment Storage and Disposal Facility pursuant to Section 3005 of RCRA and its implementing federal and/or state regulations, with respect to: (1) the treatment, storage, transport, management, and disposal of Bevill-Excluded Wastes that have been commingled with hazardous wastes or otherwise managed in violation of law, as alleged in the Complaint but denied by Simplot, prior to the lodging of this Consent Decree, or, as applicable, prior to completing the compliance projects set forth in Appendix 6 (RCRA Project Narrative and Compliance Schedule) as provided by Paragraph 13, or during

timely implementation of a Correction Plan as set forth in Paragraph 34; and (2) wastes or other materials that Paragraphs 15 through 18 allow to be input to Upstream Operations or Downstream Operations, or managed via the Acid Value Recovery System, SPA Recovery Units, Granulation Recovery System Units, or together with Bevill-Excluded Wastes.

VI. WORK TAKEOVER

37. In the event EPA determines that Simplot: (a) has ceased implementation of any portion of the Work; or (b) is seriously or repeatedly deficient or late in its performance of the Work; or (c) is implementing the Work in a manner that may cause an endangerment to human health or the environment, EPA, with the joint approval of the EPA Region 8 Regional Administrator and the Assistant Administrator for the EPA Office of Enforcement and Compliance Assurance, may issue a written notice ("Work Takeover Notice") to Simplot. Any Work Takeover Notice issued by EPA shall specify the grounds upon which such notice was issued and shall provide Simplot a period of thirty (30) Days, or such additional time that may reasonably be needed, within which to remedy the circumstances giving rise to EPA's issuance of such notice.

38. If, after expiration of the period specified in Paragraph 37, the Work Takeover Notice has not been withdrawn by EPA and Simplot has not remedied to EPA's satisfaction the circumstances giving rise to EPA's issuance of the Work Takeover Notice, EPA at any time thereafter may undertake takeover of Work by assuming and/or directing the performance of, seeking the appointment of a receiver to direct the performance of, or accessing Financial Assurance to finance the performance of, all or any portions of the Work that EPA deems necessary to correct the violations or conditions that triggered the Work Takeover Notice pursuant to Paragraph 37. In either case, EPA may utilize Financial Assurance for closure of the

Phosphogypsum Stack System, and/or long-term care, as authorized by this Consent Decree, for any Work covered by such Financial Assurance. EPA shall notify Simplot in writing if EPA determines that takeover of Work is warranted under this Section of the Consent Decree. In the event that EPA seeks to appoint a receiver to direct the performance of the Work, Simplot shall not oppose such appointment on grounds other than lack of competence or conflict of interest, but shall retain its right to challenge the underlying takeover of Work in dispute resolution, as set forth in the following Paragraph and Section X (Dispute Resolution). In implementing any takeover of Work, EPA shall make reasonable efforts not to interfere with Facility operations not directly affected by the conditions that triggered the takeover of Work.

39. In the event that Simplot invokes Section X (Dispute Resolution) with respect to EPA's takeover of Work and/or its selection of options set forth in Paragraph 38 (the latter of which, if disputed, must be disputed together with the underlying takeover of Work and pursuant to Paragraph 71(a)), EPA during the pendency of any such dispute may, in its unreviewable discretion, commence and continue a takeover of Work until the earlier of: (a) the date that Simplot remedies, to EPA's satisfaction, the circumstances giving rise to issuance of the Work Takeover Notice; or (b) the date that a final decision is rendered in accordance with Section X (Dispute Resolution) of the Consent Decree requiring EPA to terminate such takeover of Work.

40. After commencement and for the duration of any takeover of Work, EPA or any appointed receiver shall have the immediate benefit of any Financial Assurance provided pursuant to Paragraph 26 and Appendix 2 (Financial Assurance) of this Consent Decree to implement the Work. If EPA or any appointed receiver are unable to access the Financial Assurance, or the Work addressed by the takeover of Work is not covered by Financial Assurance, then any unreimbursed costs incurred by EPA in connection with the takeover of

Work shall be considered a financial obligation owed by Simplot to the United States and collectible in an action to enforce this Consent Decree. Nothing in this Paragraph shall be construed to relieve Simplot of its obligation to provide adequate Financial Assurance pursuant to Appendix 2. In the event that it is determined in dispute resolution that the takeover of Work was not warranted, any unexpended funds in a stand-by trust that originated from a letter of credit, surety bond, or corporate guarantee shall be used to restore any pre-existing trust fund to the pre-takeover of Work level, if necessary, and any balance of unexpended funds shall be released and used to re-establish the original financial mechanism(s).

VII. REPORTING REQUIREMENTS

41. If Simplot determines that it has violated or will violate any requirement of this Consent Decree, Simplot shall (unless otherwise directed by EPA) notify EPA of such violation and its likely duration in writing, within twelve (12) Days of the date Simplot first becomes aware of the violation, with an explanation of the likely cause of the violation and of the remedial steps taken, or to be taken, to prevent or minimize such violation. If the cause of the violation cannot be fully explained at the time the report is due, Simplot shall so state in the report. Simplot shall investigate the cause of the violation and shall then submit an amendment to the report, including a full explanation of any identifiable cause(s) of the violation, within thirty (30) Days of the date Simplot becomes aware of the violation. Nothing in this Paragraph or Paragraphs 42 and 43 relieves Simplot of its obligation to provide the notice required by Section IX (Force Majeure).

42. Periodic Reporting.

(a) Within forty-five (45) Days after the end of each calendar quarter after lodging of this Consent Decree, until the quarter ending after the two (2) year anniversary of the date of lodging, Simplot shall submit to EPA a report for the preceding calendar quarter (quarters shall end on March 31, June 30, September 30, and December 31 of each year) that shall include: (i) the status of any construction or compliance measures; (ii) completion of milestones; (iii) problems encountered or anticipated, together with implemented or proposed solutions; (iv) status of permit applications; (v) status of plans for closure and long-term care; and status of permit application, as applicable, for closure or long-term care; (vi) operation and maintenance difficulties or concerns; (vii) status of Financial Assurance; (viii) reports to state agencies concerning matters enumerated in this Paragraph; (ix) a description of any violation of the requirements of this Consent Decree reported under Paragraph 41 and an explanation of the likely cause of such violation and the remedial steps taken, or to be taken, to prevent or minimize such violation; and (x) identification of any confirmed "critical condition" as defined and reported to EPA pursuant to Appendix 1.D (Critical Conditions and Temporary Measures).

(b) Thereafter (following the expiration of the period specified in Paragraph 42(a)), and for a period of two (2) years, Simplot shall submit such reports to EPA on a semi-annual basis.

(c) Thereafter (following the expiration of the period specified in Paragraph 42(b)), Simplot shall submit such reports annually until such time as Simplot submits the final closure application required for the Facility pursuant to Appendix 1.C (Closure of Phosphogypsum Stacks/Stack Systems) and 1.E (Phosphogypsum Stack System Permanent Closure Application). Simplot shall submit its next report within one hundred eighty (180) Days after submission of the closure application, and annually thereafter until this Consent Decree is terminated.

43. Whenever any violation of this Consent Decree, or any other event affecting Simplot's performance under this Consent Decree or the performance of its Facility, may pose an immediate threat to the public health or welfare or the environment, Simplot shall, unless otherwise directed, notify EPA as per Section XIV (Notices), orally or by electronic or facsimile transmission as soon as possible, but no later than twenty-four (24) hours after Simplot first knew of the violation or event, and shall comply with the requirements of Appendix 1.D (Critical Conditions and Temporary Measures). Any violation of this notice requirement shall be deemed to terminate on the date that EPA has received actual notice of the violation or event either based on notice from Simplot or by other means. This notice requirement does not relieve Simplot of its obligation to comply with any federal and state laws applicable to the violation or event. This notice requirement is in addition to the requirement to provide notice of a violation of this Consent Decree set forth in Paragraphs 41 and 42.

44. All reports shall be submitted to the persons designated to receive notices for the Plaintiff in Section XIV (Notices) of this Consent Decree.

45. Each report submitted by Simplot under this Section shall be signed by a responsible corporate official of Simplot (as defined in 40 C.F.R. § 270.11(a)) and shall include the following certification:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

This certification requirement does not apply to emergency notifications where compliance would be impractical.

46. The reporting requirements of this Consent Decree do not relieve Simplot of any reporting obligations required by RCRA Requirements, or by any other federal, state, or local law, regulation, permit, or other requirement. However, the reporting requirements of this Consent Decree shall not require Simplot to resubmit any report, plan, or information submitted by Simplot to EPA prior to the Effective Date of this Consent Decree.

47. Any information provided pursuant to this Consent Decree may be used by the Plaintiff in any proceeding to enforce the provisions of this Consent Decree, subject to Paragraph 77 and as otherwise permitted by law.

VIII. STIPULATED PENALTIES

48. Simplot shall be liable for stipulated penalties to the United States for violations of this Consent Decree as specified below, unless otherwise expressly provided for in this Consent Decree or excused under Section IX (Force Majeure). A violation includes failing to perform any obligation required by the terms of this Consent Decree, including any work plan or schedule approved under this Consent Decree, according to all applicable requirements of this Consent Decree and within the specified time schedules established by or approved under this Consent Decree.

49. Civil Penalty. If Simplot fails to pay the civil penalty required to be paid under Section IV (Civil Penalty) when due, Simplot shall pay a stipulated penalty of $1,000 per Day for each Day that the payment is late for the first ten (10) Days, together with Interest. Thereafter, Simplot shall pay $3,000 per Day for each Day that the payment is late, with Interest. Late payment of the civil penalty shall be made in accordance with Section IV (Civil Penalty),

Paragraph 11. Stipulated penalties for late payment of the civil penalty shall be paid in accordance with Paragraphs 52, 53, 55, and 56. All transmittal correspondence shall state that any such payment is for late payment of the civil penalty due under this Consent Decree, or for stipulated penalties for late payment, as applicable, and shall include the identifying information set forth in Paragraph 11.

50. Compliance Requirements. The following stipulated penalties shall accrue per violation per Day for each violation of the requirements identified in Section V (Compliance Requirements):

Penalty Per Violation Per Day	Period of Noncompliance
$1,000	1st through 14th Day
$2,000	15th through 30th Day
$3,000	31st Day and beyond

51. Reporting and Notice Requirements. The following stipulated penalties shall accrue per violation per Day for each violation of the requirements of Section VII (Reporting Requirements), and Paragraph 91 of Section XIV (Notices):

Penalty Per Violation Per Day	Period of Noncompliance
$ 750	1st through 14th Day
$1,000	15th through 30th Day
$2,000	31st Day and beyond

52. Subject to the provisions of Paragraph 32, and except as otherwise specified in Paragraph 55(b), stipulated penalties under this Section shall begin to accrue on the Day after performance is due or on the Day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases. Stipulated penalties shall accrue simultaneously for separate violations of this Consent Decree.

53. Simplot shall pay stipulated penalties to the United States within twelve (12) Days of a written demand by the Plaintiff, subject to Simplot's right to invoke dispute resolution in accordance with Section X (Dispute Resolution).

54. The Plaintiff, may, in the unreviewable exercise of its discretion, reduce or waive stipulated penalties otherwise due to the Plaintiff under this Consent Decree.

55. Stipulated penalties shall continue to accrue, as provided in Paragraph 52, during any dispute resolution, but need not be paid until the following:

(a) If the dispute is resolved by agreement of the Parties or by a decision of EPA that is not subject to judicial review or appealed to the Court, Simplot shall pay accrued penalties determined to be owing, together with Interest, to the United States within thirty (30) Days of the effective date of the agreement or the receipt of the United States' decision.

(b) If the dispute is appealed to the Court and the United States prevails in whole or in part, Simplot shall pay all accrued penalties determined by the Court to be owing, together with Interest, within sixty (60) Days of receiving the final Court decision.

56. Simplot shall pay stipulated penalties owing to the United States in the manner set forth and with the confirmation notices required by Paragraph 11, except that the transmittal letter shall state that the payment is for stipulated penalties and shall state for which violation(s) the penalties are being paid.

57. Simplot shall not deduct stipulated penalties paid under this Section in calculating its state and federal income tax.

58. If Simplot fails to pay stipulated penalties according to the terms of this Consent Decree, Simplot shall be liable for Interest on such penalties, as provided for in 28 U.S.C. § 1961, accruing as of the date payment became due. Nothing in this Paragraph shall be

construed to limit the United States from seeking any remedy otherwise provided by law for Simplot's failure to pay any stipulated penalties.

59. Stipulated penalties are not the United States' exclusive remedy for violations of this Consent Decree. Subject to the provisions of Section XII (Effect of Settlement/ Reservation of Rights), the stipulated penalties provided for in this Consent Decree shall be in addition to any other rights, remedies, or sanctions available to the United States for Simplot's violation of this Consent Decree or applicable law. Where a violation of this Consent Decree is also a violation of relevant statutory or regulatory requirements, Simplot shall be allowed a credit for any stipulated penalties paid against any statutory penalties imposed for such violation.

IX. FORCE MAJEURE

60. Force majeure, for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of Simplot, of any entity controlled by Simplot, or of Simplot's contractors that delays or prevents the performance of any obligation under this Consent Decree despite Simplot's best efforts to fulfill the obligation. The requirement that Simplot exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure and best efforts to address the effects of any potential force majeure (a) as it is occurring and (b) following the potential force majeure such that the delay and any adverse effects of the delay are minimized to the greatest extent possible. Force majeure does not include Simplot's financial inability to perform any obligation under this Consent Decree.

61. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, whether or not caused by a force majeure event, Simplot shall provide notice to EPA orally or by electronic or facsimile transmission as soon as possible, as provided in Section XIV (Notices), but not later than seven (7) Days after the time when

Simplot first knew that the event might cause a delay. Within ten (10) Days thereafter, Simplot shall provide written notice to EPA with an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Simplot's rationale for attributing such delay to a force majeure event if it intends to assert such a claim; and a statement as to whether, in the opinion of Simplot, such event may cause or contribute to an endangerment to public health, welfare, or the environment. Simplot shall include with any notice all available documentation supporting its claim that the delay was attributable to a force majeure event. Simplot shall be deemed to know of any circumstance of which Simplot, any entity controlled by Simplot, or Simplot's contractors knew or reasonably should have known. Failure to comply with the above requirements regarding an event shall preclude Simplot from asserting any claim of force majeure regarding that event, provided, however, that if EPA, despite the late notice, is able to assess to its satisfaction under Paragraphs 60 and 61 whether the event is a force majeure and whether Simplot has exercised its best efforts, EPA may, in its unreviewable discretion, excuse in writing Simplot's failure to submit timely notices under this Paragraph.

62. If EPA agrees that the delay or anticipated delay is attributable to a force majeure event, the time for performance of the obligations under this Consent Decree that are affected by the force majeure event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the force majeure event shall not, of itself, extend the time for performance of any other obligation. If EPA agrees that the delay is attributable to a force majeure event, EPA will notify Simplot in

writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event.

63. If EPA does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, EPA will notify Simplot in writing of its decision.

64. If Simplot elects to invoke the dispute resolution procedures set forth in Section X (Dispute Resolution), it shall do so no later than fifteen (15) Days after receipt of EPA's notice. In any such proceeding, Simplot shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Simplot complied with the requirements of Paragraphs 60 and 61. If Simplot carries this burden, the delay at issue shall not constitute a violation by Simplot of the affected obligation of this Consent Decree identified to EPA and the Court.

X. DISPUTE RESOLUTION

65. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve all disputes arising under or with respect to this Consent Decree. Simplot's failure to seek resolution of a disputed issue under this Section shall preclude Simplot from raising any such issue as a defense to an action by the United States to enforce any obligation of Simplot arising under this Consent Decree.

66. Informal Dispute Resolution. Any dispute subject to dispute resolution under this Consent Decree shall first be the subject of informal negotiations, which may include any third-party assisted, non-binding alternative dispute resolution process agreeable to the Parties. If

Simplot elects to invoke dispute resolution, it shall do so by sending a written Notice of Dispute to DOJ and EPA within thirty (30) Days after Simplot's receipt of the decision Simplot disputes. The dispute shall be considered to have arisen when Simplot sends DOJ and EPA a written Notice of Dispute. Such Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed twenty (20) Days from the date that the dispute arises unless that period is modified by written agreement between EPA and Simplot. If the Parties cannot resolve a dispute by informal negotiations, then the position of the United States shall be considered binding, unless Simplot invokes formal dispute resolution procedures as provided in the following Paragraph.

67. Formal Dispute Resolution. If Simplot elects to invoke formal dispute resolution, Simplot shall, within thirty (30) Days after the conclusion of the informal negotiation period, send to DOJ and EPA a written Statement of Position regarding the matter in dispute. The Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting Simplot's position and any supporting documentation relied upon by Simplot.

68. The United States shall serve its Statement of Position within forty-five (45) Days of receipt of Simplot's Statement of Position, or of any supplemental statement the United States may request from Simplot. The United States' Statement of Position shall include or clearly reference, but need not be limited to, any factual data, analysis, or opinion supporting that position and any supporting documentation relied upon by the United States. The United States' Statement of Position shall be binding on Simplot, unless Simplot files a motion for judicial review of the dispute in accordance with the following Paragraph.

69. Simplot may seek judicial review of the dispute by filing with the Court and serving on the United States, in accordance with Section XIV (Notices), a motion requesting

judicial resolution of the dispute. The motion must be filed within thirty (30) Days of receipt of the United States' Statement of Position pursuant to the preceding Paragraph. The motion shall contain a written statement of Simplot's position on the matter in dispute, including any supporting factual data, analysis, opinion, or documentation, and shall set forth the relief requested and any schedule within which the dispute must be resolved for orderly implementation of the Consent Decree.

70. The United States shall respond to Simplot's motion within the time period allowed by the Local Rules of this Court. Simplot may file a reply memorandum to the extent permitted by the Local Rules.

71. Standard of Review.

(a) Disputes Concerning Matters Accorded Record Review. In any dispute brought under this Section pertaining to the adequacy or appropriateness of plans, procedures to implement plans, schedules, or any other items requiring approval by EPA under this Consent Decree; the adequacy of the Work performed pursuant to this Consent Decree; and all other disputes that are accorded review on the administrative record under applicable principles of administrative law, EPA shall compile an administrative record of the dispute containing all Statements of Position, including supporting documentation and referenced data or information, and Simplot shall have the burden of demonstrating, based on the administrative record, that the position of the United States is arbitrary and capricious or otherwise not in accordance with law.

(b) Except as provided in Paragraph 94, in any other dispute brought under this Section, Simplot shall bear the burden of demonstrating that its position complies with and furthers the objectives of this Consent Decree, and that Simplot is entitled to relief under applicable principles of law.

72. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of Simplot under this Consent Decree, unless and until final resolution of the dispute so provides or unless ordered by the Court. Stipulated penalties with respect to the disputed matter shall continue to accrue from the first Day of noncompliance, but payment shall be stayed pending resolution of the dispute as provided in Paragraph 55. If Simplot does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section VIII (Stipulated Penalties).

XI. INFORMATION COLLECTION AND RETENTION

73. The United States and its representatives, including attorneys, contractors, and consultants, shall have the right of entry into Simplot's Facility at all reasonable times, upon presentation of appropriate identification, to:

(a) monitor the progress of activities required under this Consent Decree;

(b) verify any data or information submitted to the United States in accordance with the terms of this Consent Decree;

(c) obtain samples and, upon request, splits of any samples taken by Simplot or its representatives, contractors, or consultants;

(d) obtain documentary evidence, including photographs and similar data;

(e) assess Simplot's compliance with this Consent Decree; and

(f) conduct, direct, or review Work pursuant to Section VI (Work Takeover).

Upon request, EPA and its authorized representatives shall provide Simplot splits of any samples taken by EPA or its authorized representatives.

74. Simplot shall retain, and shall require its contractors and agents to preserve, all non-identical copies of all documents, records, or other information that are in the possession or

control, or that come into the possession or control, of Simplot or Simplot's contractors or agents, and that relate to Simplot's performance of its obligations under this Consent Decree. The documents, records, or other information subject to the requirements of this Paragraph are those in electronic form or otherwise and include any documents, records, emails, data, or other information (a) underlying the submission of any report required pursuant to Section VII (Reporting Requirements), and (b) relating to Simplot's adherence to the requirements associated with the management of waste or other materials allowed under Paragraphs 15 through 18. This information retention requirement shall apply for a period of five (5) years after the creation of any document, record, or other information subject to this Paragraph, and shall apply regardless of any contrary corporate or institutional policies or procedures. At any time during this information retention period, upon request by the United States, Simplot shall provide copies of any documents, records, or other information required to be maintained under this Paragraph, subject to the right under Paragraph 76 to claim privilege.

75. At the conclusion of the information retention period provided in the preceding Paragraph, Simplot shall notify the United States at least ninety (90) Days prior to the destruction of any documents, records, or other information subject to the requirements of the preceding Paragraph. Unless otherwise directed by EPA, Simplot shall require its contractors and agents to provide the same notice to Simplot with respect to their materials, and shall promptly relay any such notices to the United States. Upon request by the United States, Simplot shall deliver any such documents, records, or other information to EPA. Simplot shall not dispose of materials following the expiration of its five (5) year retention period more often than once a year.

76. In connection with any request for documents, records, or other information pursuant to this Consent Decree, Simplot may assert that certain documents, records, or other

information are privileged under the attorney client privilege or any other privilege recognized by federal law, provided that Simplot shall not assert a legal privilege for any data, records, or information (excluding legal advice) generated or received in connection with Simplot's obligations pursuant to the requirements of this Consent Decree. If Simplot asserts a privilege, it shall provide the following: (a) the title of the document, record, or information; (b) the date of the document, record, or information; (c) the name and title of each author of the document, record, or information; (d) the name and title of each addressee and recipient; (e) a description of the subject of the document, record, or information; and (f) the privilege asserted by Simplot. If the Plaintiff and Simplot disagree as to whether a particular document or record is privileged, Simplot shall deliver such document or record to the United States unless it invokes dispute resolution pursuant to Section X (Dispute Resolution), in which case Simplot shall not have an obligation to deliver such document or record until a final determination is made, pursuant to the procedures set forth in Section X (Dispute Resolution), that such document or record is not privileged.

77. Simplot may also assert that information required to be provided under this Section is protected as Confidential Business Information ("CBI") under 40 C.F.R. Part 2. As to any information that Simplot seeks to protect as CBI, Simplot shall follow the procedures set forth in 40 C.F.R. Part 2, provided that: Simplot shall not assert a CBI claim with respect to any physical sampling, monitoring, or analytical data other than data related to: development of new or modified products; development of new or modified production processes; production materials or analyses collected for quality control or other manufacturing purposes; or analyses undertaken for competitive business purposes. If Simplot claims any information related to Financial Assurance is CBI, in submissions required pursuant to Appendix 2 (Financial

Assurance), Simplot shall submit two versions: one version with the claimed CBI material redacted, and so identified in the document, which will be publicly available, and a second (unredacted) version that will contain the claimed CBI material.

78. This Consent Decree in no way limits or affects any right of entry and inspection, or any right to obtain information, held by the United States pursuant to applicable federal or state laws, regulations, or permits, nor does it limit or affect any duty or obligation of Simplot to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or permits.

XII. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

79. This Consent Decree resolves the civil claims of the United States for the violations at the Facility alleged in the Complaint filed in this action through the date of the lodging of the Consent Decree. This Consent Decree also resolves such claims, if any, of the United States against Simplot's corporate officers, directors, and employees, acting in their capacities as such, but only as to the liability arising out of Simplot's liability. For continuing violations alleged in the Complaint, provided that Simplot complies with this Consent Decree, as set forth in Paragraph 81, from the date of lodging of the Consent Decree through its Effective Date, these claims shall also be resolved through the Effective Date of this Consent Decree, as of the Effective Date. Provided that Simplot complies with the Consent Decree from the Effective Date of this Consent Decree through the date of termination of this Consent Decree pursuant to Section XVIII (Termination), these claims shall be finally resolved as of the date the Consent Decree terminates.

80. Provided that Simplot is in compliance with this Consent Decree and subject to the reservation set forth below, Plaintiff covenants not to sue or take administrative action under

Section 3008(a) of RCRA, 42 U.S.C. § 6928(a), seeking to require Simplot's Facility to comply with RCRA Requirements, with respect to: (a) the generation, treatment, storage, transport, management, and disposal of Bevill-Excluded Wastes that have been commingled with hazardous wastes or otherwise managed in violation of law, as alleged in the Complaint and denied by Simplot, and that are resolved in accordance with Paragraph 79; and (b) wastes or other materials that Paragraphs 15 through 18 allow to be input to Upstream Operations or Downstream Operations directly or via the Acid Value Recovery System, SPA Recovery Units, Granulation Recovery System, or together with Bevill-Excluded Wastes. Nothing in this Paragraph shall affect Plaintiff's rights to determine and require corrective action that may be required at the Facility pursuant to Plaintiff's authorities under federal law.

81. The resolution under this Section XII (Effect of Settlement/Reservation of Rights) of the Plaintiff's civil claims set forth in the Complaint and the Plaintiff's covenants not to sue are expressly conditioned upon Simplot's timely and satisfactory compliance with the requirements of this Consent Decree. For the purposes of this Paragraph (and Paragraphs 79 and 80), and with respect to those wastes or other materials that Paragraphs 15 through 18 allow to be input to Upstream Operations or Downstream Operations directly or via the Acid Value Recovery System, SPA Recovery Units, Granulation Recovery System, or together with Bevill-Excluded Wastes, compliance with the Continuing Compliance Criteria set forth in Paragraph 34(b) constitutes compliance with this Consent Decree.

82. The United States reserves all legal and equitable remedies available to enforce the provisions of this Consent Decree, and Simplot reserves all legal and equitable defenses available to it in the defense of any such enforcement. This Consent Decree shall not be construed to limit the rights of the United States to obtain penalties or injunctive relief under the

federal and state environmental statutes or their implementing regulations, or under other federal or state law regulations or permit conditions, including Section 3008(h) of RCRA, 42 U.S.C. § 6928(h), except as expressly specified in Paragraphs 79 and 80, and Simplot in any such action shall not assert any defense based upon the contention that such claims raised by the Plaintiff were or should have been brought in the instant case under principles of waiver, res judicata, collateral estoppel, issue preclusion, claim preclusion, claim-splitting, or other such defense. The United States further retains all authority and reserve all rights to take any and all actions authorized by law to protect human health and the environment, including Corrective Action Work and non-Consent Decree corrective action, and all legal and equitable remedies to address any imminent and substantial endangerment to the public health or welfare or the environment arising at, or posed by, Simplot's Facility, whether related to the violations addressed in this Consent Decree or otherwise.

83. This Consent Decree is not a permit, or a modification of any permit, under any federal, state, or local law or regulation. While this Consent Decree resolves the Parties' dispute regarding the violations alleged in the Complaint as set forth in Paragraph 79, compliance with the terms of this Consent Decree does not guarantee compliance with all applicable federal, state, or local laws, regulations, or permits. Except as provided in Paragraphs 35, 79, 80, and 81, Simplot is not relieved of its obligation to achieve and maintain compliance with all applicable federal, state, and local laws, regulations, and permits. Simplot's compliance with this Consent Decree shall be no defense to any action commenced by Plaintiff pursuant to any such law, regulation, or permit, except as expressly specified in Paragraphs 35, 79, 80, and 81.

84. This Consent Decree does not limit or affect the rights of the Parties against any third parties (persons not a Party to this Consent Decree), nor does it limit the rights of third

parties except as provided by the doctrine of federal preemption or by other applicable principles of law or precedent.

85. This Consent Decree shall not be construed to create rights or obligations in, or grant any cause of action to, any third party.

86. Nothing in the Complaint filed in this action or in this Consent Decree, including the execution and implementation of this Consent Decree, shall constitute an admission by Simplot of any violation of RCRA Requirements, EPCRA, or of any of the allegations in the Complaint. Simplot reserves all rights to dispute the factual and legal representations of the Complaint and Consent Decree except in an action to enforce this Consent Decree by a Party. The terms of this Consent Decree may not be used as evidence in any litigation between the Parties except (a) pursuant to Section X (Dispute Resolution), (b) in an action to enforce this Consent Decree, or (c) in an action by Plaintiff in which Simplot asserts a defense based on this Consent Decree.

XIII. COSTS

87. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States shall be entitled to collect costs (including attorneys' fees) incurred in any action necessary to access Financial Assurance pursuant to Paragraph 26 and Appendix 2 (Financial Assurance) of this Consent Decree, or to collect any portion of the civil penalty, any stipulated penalties, or other costs due under this Consent Decree but not paid by Simplot.

XIV. NOTICES

88. Unless otherwise specified herein, whenever notifications, submissions, or communications are required by this Consent Decree in accordance with Section VII (Reporting

Requirements) they shall be made electronically, unless otherwise requested by EPA, and addressed as follows:

As to DOJ by email:	Eescdcopy.enrd@usdoj.gov Re: DJ #90-7-1-08388/8
As to DOJ by mail:	EES Case Management Unit Environment and Natural Resources Division U.S. Department of Justice P.O. Box 7611 Washington D.C. 20044-7611 Re: DOJ No. 90-7-1-08388/8 *via overnight service*: 4 Constitution Square 150 M Street, NE Room 2.900 Washington, DC 20002 Re: DOJ #90-7-1-08388/8
As to EPA by mail:	Director, Enforcement and Compliance Assurance Division US EPA Region 8 (8ENF-IO) 1595 Wynkoop St. Denver, CO 80202-1129

and with respect to notices pertaining to Financial Assurance:

To EPA:	Director, Enforcement and Compliance Assurance Division US EPA Region 8 (8ENF-IO) 1595 Wynkoop St. Denver, CO 80202-1129
To Simplot:	Vice President, Environmental & Regulatory Affairs J.R. Simplot Company 1099 W. Front Street Boise, ID 83702 Senior Environmental Counsel J.R. Simplot Company 1099 W. Front Street Boise, ID 83702

89. Any Party may, by written notice to the other Party, change its designated notice recipient or notice address provided above.

90. Notices submitted pursuant to this Section shall be deemed submitted upon electronic transmission, unless otherwise provided in this Consent Decree or by mutual agreement of the Parties in writing.

91. Within thirty (30) Days of submission to EPA, Simplot shall also post all (a) documents requiring EPA approval under this Consent Decree, and (b) reports submitted to EPA under Paragraph 42 (Periodic Reporting), either on Simplot's company website or on a dedicated website, in a manner that shall be readily accessible, clearly labeled, and clearly presented to the public. Each document posted shall remain posted for at least five (5) years. Simplot shall include the following language alongside all submissions posted pursuant to this Paragraph: "This submission has been generated in accordance with Simplot's settlement with the United States in *U.S. v. J.R. Simplot Co.*, Civ. No. 20-CV-125-F (D. Wyo.) and may not have been reviewed or verified by U.S. EPA prior to posting. If you have questions about the information in this submission, please contact Alan Prouty, Vice President Environmental & Regulatory Affairs, 1099 W. Front Street, Boise, ID 83702, (208) 780-7365, alan.prouty@simplot.com." Pursuant to Paragraph 94, the parties may by subsequent written agreement modify the requirements of this Paragraph to specify alternative means of providing the public with access to documents and reports under this Paragraph; the Parties anticipate that any such modification would be non-material under Paragraph 94 to the extent the modification ensures that documents and reports under this Paragraph will continue to be made available in a manner that is readily accessible, clearly labeled, and clearly presented to the public.

XV. EFFECTIVE DATE

92. The Effective Date of this Consent Decree shall be the date of a Final Order by which this Consent Decree is entered by the Court or by which a motion to enter the Consent Decree is granted, whichever occurs first, as recorded on the Court's docket. The filing or pendency of an appeal of the Court's entry of this Consent Decree shall not stay the Effective Date, except as may be otherwise determined pursuant to Paragraph 94 of Section XVII (Modification). Simplot hereby agrees that it shall be bound from the date of its execution of this Decree to perform obligations scheduled in this Consent Decree to occur prior to the Effective Date.

XVI. RETENTION OF JURISDICTION

93. The Court shall retain jurisdiction over this case until termination of this Consent Decree, pursuant to Section XVIII (Termination), for the purpose of resolving disputes arising under this Consent Decree (including disputes under any trust agreements entered pursuant hereto) or entering orders modifying this Consent Decree, pursuant to Sections X (Dispute Resolution) and XVII (Modification), or effectuating or enforcing compliance with the terms of this Consent Decree.

XVII. MODIFICATION

94. The terms of this Consent Decree may be modified only by a subsequent written agreement of the Parties to this Consent Decree as set forth herein. Any modifications to the provisions of Appendices 1 through 9 hereto, and any other modifications to any other provisions of this Consent Decree that do not constitute a material change to this Consent Decree, may be made without approval by the Court upon written agreement between the Parties. Any such non-material changes shall become enforceable under this Consent Decree upon execution by both

Simplot and the United States, shall be made available to the public by EPA (except to the extent such changes contain information determined to be CBI pursuant to Paragraph 77 and 40 C.F.R. Part 2), and shall periodically be filed with the Court. Any other modifications agreed to by the Parties shall be effective only upon approval by the Court. Except as otherwise provided in this Paragraph and Paragraph 96, a Party's refusal to agree to a modification of this Consent Decree shall be subject to dispute resolution, but a Party seeking judicial review of such a refusal shall bear the burden of demonstrating that it is entitled to the requested modification based on a significant change in factual conditions or the law or other reason that would make inequitable the continued application of the Consent Decree without the modification sought.

95. In the event that a potential transferee under Section II (Applicability) has agreed to become a party to this Consent Decree and subject to all its terms and provisions, it may do so upon written approval of the United States pursuant to Section II (Applicability) and Section XVII (Modification), without further order from the Court, in which event a supplemental signature page will be affixed to this Consent Decree and filed with the Court.

XVIII. TERMINATION

96. Periodic Review of Work Status. Once every three (3) years following the Effective Date, Simplot may request a meeting to review the status of the Work and to evaluate whether discrete portions of the Work have either been completed or may be accomplished and supervised under an administrative order or permit in lieu of this Consent Decree. If the Parties agree to such a modification, such agreement shall be memorialized in a written modification to this Consent Decree pursuant to Section XVII (Modification) and shall not require judicial approval. If the Parties agree that such modifications allow this Consent Decree to be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating the

Consent Decree. The Parties' inability to reach agreement under this Paragraph shall not be subject to dispute resolution or judicial review.

97. Completion of Work. Within ninety (90) Days after Simplot concludes that all Work required under this Consent Decree has been fully performed, Simplot shall notify EPA of its intention to request an Acknowledgement of Completion under this Paragraph and offer EPA the opportunity to conduct an inspection of the Facility to be attended by EPA and Simplot at a mutually agreeable time. If EPA conducts such inspection, then following the inspection, and correction of any problems or deficiencies noted by EPA, Simplot shall submit one or more written reports by a third-party registered professional engineer, in the relevant technical field, certifying compliance with Section V (Compliance Requirements) that the Work has been completed in full satisfaction of the requirements of this Consent Decree. The report(s) shall indicate the case name and civil action number, and shall be submitted, together with a request for Acknowledgment of Completion, in accordance with Section VII (Reporting Requirements). Third-party engineer certification of any of the written reports may be waived at EPA's discretion. If, following Simplot's notification under this Paragraph, EPA notifies Simplot that EPA declines the opportunity to conduct an inspection of the Facility, or if EPA does not respond within forty-five (45) Days, Simplot shall submit the report(s) specified in this Paragraph in support of a request for Acknowledgment of Completion.

98. If, after review of the written report(s) and certification, EPA determines that any portion of the Work has not been completed in accordance with this Consent Decree, EPA will notify Simplot in writing of the activities and/or obligations that must be undertaken to complete the Work. Without prejudice to the United States' right to enforce this Consent Decree or to assess penalties for Simplot's failure to complete any portion of the Work in accordance with

this Consent Decree, EPA will set forth in the notice a schedule for performance of the activity or activities and/or obligation(s) required under the Consent Decree, or will require Simplot to submit a schedule for EPA approval pursuant to Section V (Compliance Requirements). Simplot shall perform all activities described in the notice in accordance with the specifications and schedules established therein, subject to Simplot's right to invoke the dispute resolution procedures set forth in Section X (Dispute Resolution).

99. If EPA concludes, based on the initial or any subsequent request for an Acknowledgment of Completion by Simplot, that the Work has been fully performed in accordance with this Consent Decree, EPA will so notify Simplot in writing, which notice shall constitute the Acknowledgment of Completion.

100. Termination. After Simplot has completed the requirements set forth in Paragraphs 97 and 98 of this Section, has obtained an Acknowledgment of Completion, has complied with all other requirements of this Consent Decree, and has paid the civil penalty and any accrued stipulated penalties as required by this Consent Decree, Simplot may serve upon the United States a Request for Termination, stating that Simplot has satisfied those requirements, together with all necessary supporting documentation.

101. Following receipt by the United States of Simplot's Request for Termination, the Parties shall confer informally concerning the request and any disagreement that the Parties may have as to whether Simplot has satisfactorily complied with the requirements for termination of this Consent Decree. If the United States agrees that the Consent Decree may be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating the Consent Decree.

102. If the United States does not agree that the Consent Decree may be terminated, Simplot may invoke dispute resolution under Section X (Dispute Resolution). However, all time

periods and deadlines established under Section X shall be extended by sixty (60) Days, or more by the agreement of the Parties.

103. The parties acknowledge the possibility that future federal or state laws or regulations may be enacted concerning requirements established under the Consent Decree and, if so, might form the basis for a modification to the Consent Decree under Paragraph 94, or under Fed. R. Civ. P. 60(b). Nothing in this Paragraph is intended to waive Plaintiff's right to oppose a request or motion for modification, or to waive any argument that such modification would be unwarranted.

XIX. PUBLIC PARTICIPATION

104. This Consent Decree shall be lodged with the Court for a period of not less than thirty (30) Days for public notice and comment in accordance with 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations indicating that the Consent Decree is inappropriate, improper, or inadequate. Simplot consents to entry of this Consent Decree without further notice and agrees not to withdraw from or oppose entry of this Consent Decree by the Court or to challenge any provision of the Consent Decree, unless the United States has notified Simplot in writing that it no longer supports entry of the Consent Decree.

XX. SIGNATORIES/SERVICE

105. Each undersigned representative of Simplot and the Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice, or his/her designee, certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.

106. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis. Simplot agrees to accept service of process by mail with respect to all matters arising under or relating to this Consent Decree and to waive the formal service requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons. Defendant need not file an answer to the Complaint unless or until the Court expressly declines to enter this Consent Decree.

XXI. INTEGRATION

107. This Consent Decree and its Appendices constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in the Consent Decree and supersede all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein. Other than the Appendices, which are attached to and incorporated in this Consent Decree, and the Consolidated Materials Management Practices report referenced in Paragraph 18, no other document, nor any representation, inducement, agreement, understanding, or promise, constitutes any part of this Consent Decree or the settlement it represents, nor shall it be used in construing the terms of this Consent Decree.

XXII. FINAL JUDGMENT

108. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court as to the United States and Simplot. The Court finds that there is no just reason for delay and therefore enters this judgment as a final judgment under Fed. R. Civ. P. 54 and 58.

XXIII. 26 U.S.C. SECTION 162(f)(2)(A)(ii) IDENTIFICATION

109. For purposes of the identification requirement of Section 162(f)(2)(A)(ii) of the Internal Revenue Code, 26 U.S.C. § 162(f)(2)(A)(ii), performance of Section II (Applicability), Paragraph 7; Section V (Compliance Requirements), Paragraphs 13-30, 34 (except with respect to dispute resolution), 35, and related Appendices 1, 2, 4, 5 and 6; Section VII (Reporting Requirements), Paragraphs 41-42 and 44-45; Section XI (Information Collection and Retention), Paragraphs 73-75; and Section XIV (Notices), Paragraph 91, is restitution or required to come into compliance with law.

XXIV. APPENDICES

110. The following Appendices are attached to and part of this Consent Decree:

Appendix 1 sets forth the following Operating and Closure Requirements:

A. Groundwater Requirements;

B. Phosphogypsum Stack System Construction and Operational Requirements;

C. Closure of Phosphogypsum Stacks/Stack Systems;

D. Critical Conditions and Temporary Measures;

E. Phosphogypsum Stack System Permanent Closure Application;

Appendix 2 sets forth requirements for Financial Assurance;

Appendix 3 contains Site Maps of the Simplot Rock Springs Facility;

Appendix 4 is the Facility Report;

Appendix 5 is the Best Management Practices (BMP) Plan, and includes:

A. Minimizing and Addressing Spills and Leaks;

B. Inspections and Integrity of Tanks, Sumps, and Secondary Containment;

Appendix 6 is the RCRA Project Narrative and Compliance Schedule;

Appendix 7 contains the Alternative Liner Demonstration;

Appendix 8 is the Initial Closure Plan for the Facility; and

Appendix 9 sets forth Additional Definitions of Terms Used in Appendices.

Dated and entered this 4th day of September, 2020.

Nancy D. Freudenthal

UNITED STATES DISTRICT JUDGE
DISTRICT OF WYOMING

WE HEREBY CONSENT to the entry of the Consent Decree in *United States v. J. R. Simplot Company*, Civil Action No. 20-CV-125-F, subject to the public notice and comment requirements of 28 C.F.R. § 50.7.

FOR THE UNITED STATES OF AMERICA:

JEFFREY BOSSERT CLARK
Assistant Attorney General
Environment and Natural Resources Division
United States Department of Justice
950 Pennsylvania Avenue, NW
Washington, D.C. 20530

Date: July 1, 2020

/s/David Rosskam
DAVID ROSSKAM
Senior Counsel
Environmental Enforcement Section
Environment and Natural Resources Division
United States Department of Justice
P.O. Box 7611
Washington, D.C. 20044
(202) 514-3974

WE HEREBY CONSENT to the entry of the Consent Decree in *United States v. J. R. Simplot Company*, Civil Action No. 20-CV-125-F, subject to the public notice and comment requirements of 28 C.F.R. § 50.7.

FOR THE UNITED STATES OF AMERICA:

MARK A. KLAASSEN
United States Attorney
District of Wyoming

Date: July 9, 2020

/s/Nicholas Vassallo
NICHOLAS VASSALLO
Assistant United States Attorney
District of Wyoming
P.O. Box 668
Cheyenne, Wyoming 82003
Telephone: (307) 772-2124

WE HEREBY CONSENT to the entry of the Consent Decree in *United States v. J. R. Simplot Company*, Civil Action No. 20-CV-125-F, subject to the public notice and comment requirements of 28 C.F.R. § 50.7.

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

Date: July 6, 2020

/s/Susan Bodine
SUSAN BODINE
Assistant Administrator
Office of Enforcement and Compliance Assurance
United States Environmental Protection Agency

Date: July 6, 2020

/s/Ann Stephanos
ANN STEPHANOS
Attorney-Advisor
Office of Enforcement and Compliance Assurance
United States Environmental Protection Agency
Washington, D.C. 20460

WE HEREBY CONSENT to the entry of the Consent Decree in *United States v. J. R. Simplot Company*, Civil Action No. 20-CV-125-F, subject to the public notice and comment requirements of 28 C.F.R. § 50.7.

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

Date: June 18, 2020

/s/K.C. Schefski
K.C. SCHEFSKI
Regional Counsel
United States Environmental Protection Agency
Region 8

Date: June 18, 2020

/s/Max Greenblum
MAX GREENBLUM
Assistant Regional Counsel
United States Environmental Protection Agency
Region 8 (8ORC-LEC)
1595 Wynkoop St.
Denver, CO 80202-1129

WE HEREBY CONSENT to the entry of the Consent Decree in *United States v. J. R. Simplot Company*, Civil Action No. 20-CV-125-F, subject to the public notice and comment requirements of 28 C.F.R. § 50.7.

FOR SIMPLOT:

Date: June 17, 2020

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Date: June 17, 2020

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Appendix 1

Operating and Closure Requirements

APPENDIX 1.A: GROUNDWATER REQUIREMENTS

I. Groundwater Monitoring Plan Requirements

(1) Prior to the Effective Date, Simplot prepared a comprehensive Groundwater monitoring plan (Formation Environmental, Groundwater Monitoring Plan, April 2016), and investigated Groundwater conditions. (Formation Environmental, Groundwater Investigation Summary Report, April 2016).

(2) Simplot shall comply with this Section I (Groundwater Monitoring Plan Requirements) unless a Wyoming DEQ or EPA issued permit or order contains an approved Groundwater monitoring plan or there exists another Groundwater monitoring plan that satisfies the requirements of this Section that has already been approved by Wyoming DEQ and/or EPA.

(3) Prior to the Effective Date, Wyoming DEQ approved Simplot's Wyoming Water Quality Application for a Chapter 3 Permit to Construct (App. No 18-365) on October 11, 2018 and issued Permit No. 18-365 on February 4, 2019, which includes an approved Groundwater monitoring plan (Formation Environmental, Groundwater Monitoring Plan, October 2018) (Attachment A hereto) that serves as compliance with this Section I (Groundwater Monitoring Plan Requirements) and will be updated as necessary.

(4) Monitoring Plan Requirements.

(a) Using pertinent information (including the examples listed from (b)(i) through (xiii) below), Simplot shall provide EPA with a plan containing findings and recommendations for Groundwater monitoring derived from site-specific information. The Groundwater monitoring plan shall be signed and sealed by the professional geologist or professional engineer who prepared or approved it. The plan shall show the locations of the proposed Background and downgradient monitoring wells, construction details of the monitoring wells, and a water sampling and chemical analysis protocol. The plan shall indicate how to determine Background or (where available) Groundwater quality in the vicinity of the site and any deviations in the quality of the receiving Groundwater in the downgradient monitoring wells, except in cases where Background levels are already established and agreed upon by Wyoming DEQ and/or EPA. EPA will evaluate the adequacy of the plan upon submittal.

(b) The following information is generally required unless otherwise specified by EPA:

(i) Hydrogeological, physical and chemical data for the Facility, such as:

1. Direction and rate of Groundwater flow, and Background Groundwater quality (all field verified) where available;

2. Porosity, horizontal and vertical permeability for the Aquifer(s)[1];

3. The depth to, and lithology of, the first confining bed(s);

4. Vertical permeability, thickness, and extent of any confining beds;

5. Topography, soil information and Surface Water of the State drainage systems surrounding the Facility;

6. Geophysical methods (as appropriate) such as ground penetrating radar surveys.

(ii) Disposal rate and frequency, chemical composition, method of discharge, pond volume, spray-field dimension, or other applicable Facility specific information;

(iii) Toxicity of waste;

(iv) Present and anticipated discharge volume and seepage rate to the receiving Groundwater; and physical and chemical characteristics of the Leachate;

(v) Phosphogypsum Stack System water balance;

(vi) Other pollution sources located within one-mile radius of the Facility about which Simplot has information or knowledge;

(vii) Inventory depth, construction details, and cones of depression of water supply wells or well fields and monitoring wells located within one-mile radius of the Facility or potentially affected by the discharge;

(viii) Facility specific economic and feasibility considerations;

(ix) Chronological information on water levels in the monitoring wells and water quality data on water samples collected from the water supply and monitoring wells;

(x) Type and number of waste disposal/waste storage facilities within the Facility;

(xi) Chronological information on Surface Water of the State flows and water quality upstream and downstream from the Facility;

(xii) Construction and operation details of waste disposal/waste storage facilities;

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[1] "Aquifer" means "a zone, stratum or group of strata that can store and transmit water in sufficient quantities for a specific use." Wyoming Administrative Code. 020.0011.8, Section 2(a).

(xiii) Relevant land use history of construction and land development adjacent to the Facility.

(5) Monitoring Wells.

(a) Location of Monitoring Wells to Detect Migration of Contaminants. Unless Simplot can demonstrate that detection can be obtained by a methodology other than the use of monitoring wells, wells shall be located as required and installed pursuant to the 3013 Order and Wyoming Permit No 18-365 by Rule.

II. Groundwater Monitoring, Reporting, and Assessment

(1) Monitoring and Reporting:

(a) On a semi-annual basis, Simplot shall submit Groundwater monitoring data to EPA from all monitoring wells following the receipt of laboratory results.

(b) The reports must also include:

(i) Monitoring well location, construction, and the collection and testing of samples; and
(ii) Groundwater monitoring data displayed in graphic form for analyzing trends in water quality.

(2) Assessment: Simplot shall notify Wyoming DEQ and EPA of any Groundwater quality exceedance as described at Section 6(b)(i)(E)(VII), Chapter 3 Industrial Landfills, Wyoming Environmental Quality Act, W.S. 35-11-101 *et seq*.

(3) When requested by Wyoming DEQ and/or EPA, Simplot shall inform Wyoming DEQ and/or EPA of the next sampling schedule so that a representative of either Agency may be present.

III. Groundwater Corrective Action Work

(1) The State of Wyoming is authorized to oversee any needed Groundwater corrective action. Pursuant to Paragraph 82 of the Consent Decree, and Section II (Groundwater Monitoring, Reporting and Assessment Requirements), EPA reserves the right to directly enforce RCRA 3008(h) if Groundwater monitoring confirms any Groundwater quality exceedance as described at Section 6(b)(i)(E)(VII), Chapter 3 Industrial Landfills, Wyoming Environmental Quality Act, W.S. 35-11-101 *et seq*., or if there is an increase in contaminant concentration (including corrosivity) which EPA or Wyoming DEQ determines constitutes an imminent and substantial endangerment to human health and/or the environment.

(2) If Corrective Action Work is required, Simplot shall submit a plan for proposed Corrective Action Work ("Corrective Action Plan"), within ninety (90) days of receiving notification of Wyoming DEQ's or EPA's determination, that addresses, at a minimum, the following factors:

(a) Direction of the plume movement in relationship to existing and potential sources of drinking water;

(b) Plume size both in the aerial and vertical dimensions;

(c) Rate of migration of the plume;

(d) Concentrations of contaminants of/in the plume;

(e) Rate at which the plume is being attenuated;

(f) Current and projected future use of adjacent ground and Surface Waters of the State affected by the plume;

(g) A detailed description of the activities that are proposed to be taken to prevent further migration of the plume and to clean-up the contamination or release.

(h) The costs of Corrective Action Work; and

(i) A comparison of the clean up or other Corrective Action Work costs with the benefits to the public of such Corrective Action Work.

(3) Simplot will provide within thirty (30) days, if requested by Wyoming DEQ or EPA, any additional information or data needed to aid Wyoming DEQ or EPA in making its Corrective Action Work assessment.

(4) After Simplot submits the Corrective Action Plan, and the Corrective Action Plan is approved by Wyoming DEQ or EPA, Simplot shall perform Corrective Action Work in accordance with the Corrective Action Plan.

(5) Within thirty (30) days after completing the Corrective Action Work in accordance with the Corrective Action Plan, Simplot shall submit to Wyoming DEQ or EPA a report evaluating the effectiveness of the Corrective Action Work along with a certification that Simplot has completed the Corrective Action Work.

GROUNDWATER MONITORING PLAN

Simplot Phosphates, LLC

Rock Springs, Wyoming

October 2018

Prepared for:

Simplot Phosphates, LLC
515 South Highway 430
Rock Springs, WY 82901

Prepared by:

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SIMPLOT PHOSPHATES, LLC
ROCK SPRINGS, WYOMING

GROUNDWATER MONITORING PLAN

10-5-2018

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1.0 INTRODUCTION

This document presents the groundwater monitoring plan for the Simplot Phosphates, LLC (Simplot), phosphate plant near Rock Springs, Wyoming. Groundwater monitoring has been required at the gypsum storage facility (gypsum stack) since its construction in 1986 as a condition of the Permit to Construct (PTC) issued by the Wyoming Department of Environmental Quality (WDEQ) Water Quality Division (WDEQ 1985). This plan provides for groundwater monitoring that is consistent with the most recent version of the PTC (Permit No. 06-606, October 2006 with subsequent extensions) (WDEQ 2006) and Chapter 3 Section 17(d) of the WDEQ Water Quality Rules and Regulations (WDEQ 2012). The plan also incorporates commitments made to the U.S. Environmental Protection Agency (EPA) under the Resource Conservation and Recovery Act (RCRA) Section 3013(a) Administrative Order on Consent (AOC) (EPA 2012). Simplot recently completed an investigation required under the RCRA 3013 AOC and this monitoring plan is consistent with the monitoring that was being performed during the last 3 years of the investigation.

2.0 BACKGROUND

The initial groundwater monitoring requirements for the Simplot Phosphates Rock Springs facility were set forth in the 1985 PTC and are currently included in Permit No. 06-606 as permit condition 5 of 7. Groundwater monitoring is required for the gypsum storage facility as stated in Chapter 3 Section 17(d) of WDEQ Water Quality Rules and Regulations (WDEQ 2012) and results of monitoring are reported to the State of Wyoming.

Monitoring wells PZ-B1 through PZ-B4 and the collection ditch have been sampled quarterly since operation of the gypsum storage facility began, except for PZ-B1 which has not contained sufficient water to sample since March 1987. Groundwater samples were analyzed for pH, specific conductance, total dissolved solids, chloride, fluoride, sulfate, aluminum, cadmium, chromium, copper, vanadium, gross alpha, and radium-226 as required by the permit to construct. In the 2006 renewal of the permit, total phosphorus and radium-226 were added to the analyte list.

In 1991, five additional wells were drilled in the vicinity of the gypsum storage facility (PZ-B5 through PZ-B9). Wells PZ-B5 and PZ-B7 were abandoned during drilling. Wells PZ-B6, PZ-B8, and PZ-B9 were sampled in December 1991 and analyzed for total dissolved solids, chloride, fluoride, sulfate, aluminum, antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, silver, thallium and zinc. These wells were not sampled again until August 2011 when Simplot began sampling them quarterly for the same constituents as listed in the PTC.

With the initiation of the RCRA 3013 AOC in 2012, additional federal requirements for groundwater monitoring were implemented. In July 2012, after the RCRA 3013 AOC was signed, groundwater monitoring was expanded to all six existing functional groundwater monitoring wells in place at that time: PZ-B2, PZ-B3, PZ-B4, PZ-B6, PZ-B8, and PZ-B9 (As previously mentioned, PZ-B1 has not contained sufficient water to sample since March 1987). An additional groundwater investigation was conducted under the RCRA 3013 AOC from June to September 2013 and included the drilling, installation and sampling of 39 new monitoring wells at 15 boring locations around the facility (Formation 2013). Locations of all groundwater monitoring wells and the groundwater collection ditch are shown in Figure 2-1 and well construction details are summarized in Table 2-1.

Of the 39 new wells installed only 30 contained enough groundwater to be sampled. Sampling was initiated in the 3rd quarter 2013 (September 7 to 13, 2013) at the 30 new wells (with sufficient water), the six existing monitoring wells, and the collection ditch (2 locations), for a total of 38 samples. This sampling event was the first of eight quarterly events that were required by the RCRA investigation work plan. This same scope was repeated for the 4th quarter 2013 (November 2013) and 1st quarter 2014 (March 2014) sampling events. Beginning in 2nd quarter 2014 (June 2014), the list of wells to be sampled was reduced to include a selected group of 23 monitoring wells (the six initial monitoring wells and 17 of the new monitoring wells) and two collection ditch locations, for a total of 25 samples. Recommendations for the reduction in scope were made in the Sampling and Analysis Report (SAR; Formation 2014) and approved by EPA (EPA 2014). The 13 monitoring wells that were eliminated from the sampling program were the deeper intervals at the PZ-B10, BZ-B15, PZ-B18, PZ-B20, and PZ-B21 well nests. Samples were collected from this smaller set of locations during subsequent quarterly events in August 2014, November 2014, February 2015, and April 2015.

Simplot provided a Baseline Groundwater Conditions Report presenting the results of the RCRA 3013 investigation in August 2015 (Formation 2015, revised in January 2016). The primary findings of the investigation were that, based on the high sulfate and TDS concentrations naturally found in shallow groundwater samples obtained prior to and during facility operation, groundwater at the Site is classified as Class III and Class IV(A) according to the Wyoming groundwater quality standards. Groundwater elevation and chemistry data also demonstrated that operations at the facility did not affect groundwater potential or concentrations of constituents of potential concern (COPCs) in groundwater. Groundwater quality standards are provided in Chapter 8 of WDEQ Water Quality Rules and Regulations (WDEQ 2005). Since groundwater flow velocities are sufficiently slow (less than 1 foot per day) quarterly monitoring was viewed as unnecessary and an additional reduction in the groundwater monitoring program was approved by EPA in November 2015. Under the revised program groundwater monitoring was conducted at 10 well locations and the collection ditch with samples collected semi-annually. Sampling was conducted for an additional 3 years under the RCRA 3013 AOC at the request of EPA with the last event completed in June 2018. On July 18, 2018 Simplot was notified that the requirements of the AOC had been met and that continued groundwater monitoring would be coordinated with WDEQ Water Quality Division, pursuant to Wyoming regulatory requirements.

3.0 GROUNDWATER MONITORING PROGRAM

Based on the analysis of groundwater quality and potentiometric data and the recommendations presented in the Baseline Groundwater Conditions Report (Formation Environmental 2015), the long-term groundwater monitoring network will be expanded from that in effect under the prior PTC. Groundwater level measurements will be performed quarterly at all 45 monitoring wells and the groundwater collection ditch. Groundwater samples will be collected for water quality analysis from a subset of 10 monitoring wells and the groundwater collection ditch according to the schedule provided in Table 3-1. The sample locations are shown circled in red in Figure 2-1. This is the same sampling scope approved by EPA under the RCRA 3013 AOC in November 2015. Groundwater samples will be collected from the original monitoring wells PZ-B2, PZ-B3, PZ-B4 downgradient of the groundwater collection ditch; one location in the groundwater collection ditch; and from seven of the recently installed monitoring wells semi-annually. The seven additional locations (PZ-B10A, PZ-B9, PZ-B12A, PZ-B18A, PZ-B20B, PZ-B22B, and PZ-B16A) provide for monitoring upgradient of the gypsum storage facility, east and west of the gypsum storage facility, and downgradient and outside the influence of the groundwater collection ditch. It is anticipated that PZ-B9 will be abandoned in the future as the gypsum storage facility expansion inundates the location. Upgradient monitoring at PZ-B18A will be sufficient as a replacement for the loss of this well.

The analyte list for long-term groundwater monitoring is provided in Table 3-2. The list is based on the results of RCRA 3013 investigation. Based on the conclusions presented in the Baseline Groundwater Conditions Report (Formation 2015), this list is adequate for the detection of potential changes in groundwater quality due to facility influence.

4.0 REPORTING

Groundwater monitoring data will be provided to WDEQ semi-annually following the receipt of laboratory results.

5.0 REFERENCES

Formation Environmental (Formation) 2013. Sampling and Analysis Work Plan. Prepared for Simplot Phosphates, LLC, Rock Springs, Wyoming. Revision 2. (Includes SAP, QAPP, HASP, and SOPs). December 2013.

Formation Environmental (Formation) 2014. Sampling and Analysis Report. Prepared for Simplot Phosphates, LLC, Rock Springs, Wyoming. May 2014.

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TABLES

Table 2-1: Monitoring Well Construction Details

Well ID	Completion Date	Borehole Total Depth (ft bgs)	Ground Elev	Top of Casing Elev	Bottom of Borehole Elev	Installed Screen Length (ft)	Top Screen Depth (ft bgs)	Top Screen Elev	Bottom Screen Depth (ft bgs)	Bottom Screen Elev	Screen Mid-point Elev	Drilling Company	Well Casing Type	Well Casing Diam. (in)	Well Screen Slot Size (in)
PZ-B1	Jul-85	52	6566.57	6,565.30	6513.3	40	12	6553.3	52	6513.3	6533.3	Fox	PVC Sch40	4	
PZ-B2	Jul-85	52	6559.19	6,562.35	6506.69	40	12	6546.69	52	6506.69	6526.69	Fox	PVC Sch40	4	
PZ-B3	Jul-85	52	6567.37	6,569.32	6514.37	40	12	6554.37	52	6514.37	6534.37	Fox	PVC Sch40	4	
PZ-B4	Jul-85	42	6576.68	6,579.09	6533.64	40	2	6573.64	42	6533.64	6553.64	Fox	PVC Sch40	4	
PZ-B6	Dec-91	76	6565.03	6,566.66	6480.47	40	36	6520.47	76	6480.47	6500.47	Searle	PVC Sch40	4	
PZ-B8	Dec-91	115	6560.59	6,563.00	6445.58	40	75	6485.58	115	6445.58	6465.58		PVC Sch40	4	
PZ-B9	11/26/91	225.5	6700.07	6,702.63	6471.12	40	185	6511.62	225.5	6471.12	6491.37	Boyles	PVC Sch40	4	
PZ-B1R	7/28/13	78	6566.38	6,569.33	6488.38	25	50	6516.38	75	6491.38	6503.88	AK Drilling	PVC Sch40	2	0.02
PZ-B10A	6/26/13	302	6551.06	6,553.27	6248.46	10	35	6516.06	45	6506.06	6511.06	AK Drilling	PVC Sch40	2	0.02
PZ-B10B	6/26/13	302	6551.06	6,553.27	6248.46	5	50	6501.06	55	6496.06	6498.56	AK Drilling	PVC Sch40	2	0.02
PZ-B10C	6/26/13	302	6551.06	6,553.28	6248.46	10	265	6286.06	275	6276.06	6281.06	AK Drilling	PVC Sch40	2	0.02
PZ-B11A	6/28/13	302	6685.87	6,688.21	6383.87	15	115	6570.87	130	6555.87	6563.37	AK Drilling	PVC Sch40	2	0.02
PZ-B11B	6/28/13	302	6685.87	6,688.21	6383.87	10	195	6490.87	205	6480.87	6485.87	AK Drilling	PVC Sch40	2	0.02
PZ-B11C	6/28/13	302	6685.87	6,688.21	6383.87	10	270	6415.87	280	6405.87	6410.87	AK Drilling	PVC Sch40	2	0.02
PZ-B12A	7/2/13	300	6747.01	6,749.42	6447.01	15	105	6642.01	120	6627.01	6634.51	AK Drilling	PVC Sch40	2	0.02
PZ-B12B	7/2/13	300	6747.01	6,749.41	6447.01	10	205	6542.01	215	6532.01	6537.01	AK Drilling	PVC Sch40	2	0.02
PZ-B12C	7/2/13	300	6747.01	6,749.41	6447.01	10	285	6462.01	295	6452.01	6457.01	AK Drilling	PVC Sch40	2	0.02
PZ-B13A	7/26/13	302	6797.48	6,799.87	6495.48	25	135	6662.48	160	6637.48	6649.98	AK Drilling	PVC Sch40	2	0.02
PZ-B13B	7/26/13	302	6797.48	6,799.86	6495.48	20	200	6597.48	220	6577.48	6587.48	AK Drilling	PVC Sch40	2	0.02
PZ-B13C	7/26/13	302	6797.48	6,799.86	6495.48	20	270	6527.48	290	6507.48	6517.48	AK Drilling	PVC Sch40	2	0.02
PZ-B14	7/9/13	110	6597.63	6,599.74	6487.63	25	85	6512.63	110	6487.63	6500.13	AK Drilling	PVC Sch40	2	0.02
PZ-B15A	7/2/13	102	6595.04	6,597.33	6493.04	15	50	6545.04	65	6530.04	6537.54	AK Drilling	PVC Sch40	2	0.02
PZ-B15B	7/2/13	102	6595.04	6,597.33	6493.04	10	90	6505.04	100	6495.04	6500.04	AK Drilling	PVC Sch40	2	0.02
PZ-B16A	7/11/13	300	6625.52	6,627.95	6325.52	25	90	6535.52	115	6510.52	6523.02	AK Drilling	PVC Sch40	2	0.02
PZ-B16B	7/11/13	300	6625.52	6,627.93	6325.52	20	180	6445.52	200	6425.52	6435.52	AK Drilling	PVC Sch40	2	0.02
PZ-B16C	7/11/13	300	6625.52	6,627.94	6325.52	20	240	6385.52	260	6365.52	6375.52	AK Drilling	PVC Sch40	2	0.02
PZ-B17A	7/13/13	300	6716.95	6,719.37	6416.95	25	110	6606.95	135	6581.95	6594.45	AK Drilling	PVC Sch40	2	0.02
PZ-B17B	7/13/13	300	6716.95	6,719.40	6416.95	20	210	6506.95	230	6486.95	6496.95	AK Drilling	PVC Sch40	2	0.02
PZ-B17C	7/13/13	300	6716.95	6,719.40	6416.95	20	270	6446.95	290	6426.95	6436.95	AK Drilling	PVC Sch40	2	0.02
PZ-B18A	7/24/13	302	6782.51	6,784.85	6480.51	25	155	6627.51	180	6602.51	6615.01	AK Drilling	PVC Sch40	2	0.02
PZ-B18B	7/24/13	302	6782.51	6,784.83	6480.51	20	212	6570.51	232	6550.51	6560.51	AK Drilling	PVC Sch40	2	0.02
PZ-B18C	7/24/13	302	6782.51	6,784.84	6480.51	20	280	6502.51	300	6482.51	6492.51	AK Drilling	PVC Sch40	2	0.02
PZ-B19A	7/30/13	302	6771.44	6,773.93	6469.44	25	125	6646.44	150	6621.44	6633.94	AK Drilling	PVC Sch40	2	0.02
PZ-B19B	7/30/13	302	6771.44	6,773.92	6469.44	20	190	6581.44	210	6561.44	6571.44	AK Drilling	PVC Sch40	2	0.02
PZ-B19C	7/30/13	302	6771.44	6,773.94	6469.44	20	265	6506.44	285	6486.44	6496.44	AK Drilling	PVC Sch40	2	0.02
PZ-B20A	7/28/13	302	6796.75	6,799.15	6494.75	25	145	6651.75	170	6626.75	6639.25	AK Drilling	PVC Sch40	2	0.02
PZ-B20B	7/28/13	302	6796.75	6,799.12	6494.75	20	200	6596.75	220	6576.75	6586.75	AK Drilling	PVC Sch40	2	0.02
PZ-B20C	7/28/13	302	6796.75	6,799.15	6494.75	20	265	6531.75	285	6511.75	6521.75	AK Drilling	PVC Sch40	2	0.02
PZ-B21A	6/29/13	300	6703.55	6,706.04	6403.55	15	140	6563.55	155	6548.55	6556.05	AK Drilling	PVC Sch40	2	0.02
PZ-B21B	6/29/13	300	6703.55	6,706.03	6403.55	10	185	6518.55	195	6508.55	6513.55	AK Drilling	PVC Sch40	2	0.02
PZ-B21C	6/29/13	300	6703.55	6,706.03	6403.55	10	230	6473.55	240	6463.55	6468.55	AK Drilling	PVC Sch40	2	0.02
PZ-B22A	7/14/13	106	6619.77	6,622.14	6513.77	15	58	6561.77	73	6546.77	6554.27	AK Drilling	PVC Sch40	2	0.02
PZ-B22B	7/14/13	106	6619.77	6,622.13	6513.77	10	90	6529.77	100	6519.77	6524.77	AK Drilling	PVC Sch40	2	0.02
PZ-B23A	7/16/13	200	6532.99	6,535.36	6332.99	15	21	6511.99	36	6496.99	6504.49	AK Drilling	PVC Sch40	2	0.02
PZ-B23B	7/16/13	200	6532.99	6,535.33	6332.99	10	57	6475.99	67	6465.99	6470.99	AK Drilling	PVC Sch40	2	0.02
PZ-B23C	7/16/13	200	6532.99	6,535.33	6332.99	10	185	6347.99	195	6337.99	6342.99	AK Drilling	PVC Sch40	2	0.02

Notes:
All elevations indicated in Feet above Mean Sea Level (msl)
All measurements to installed well materials given in feet below ground surface (ft bgs)
All annular seals between well screen filter packs nested in single boreholes were constructed of medium bentonite chips, hydrated as necessary.

Table 3-1: Long-Term Groundwater Quality Sampling Locations and Frequency

Location	Location Description	Sample Frequency
CD	Groundwater Collection Ditch	Semi-annual
PZ-B2	Downgradient of CD, within CD hydraulic influence	Semi-annual
PZ-B3	Downgradient of CD, within CD hydraulic influence	Semi-annual
PZ-B4	Downgradient of CD, within CD hydraulic influence	Semi-annual
PZ-B10A	Downgradient of CD, no CD hydraulic influence	Semi-annual
PZ-B9	Upgradient of gypsum storage facility	Semi-annual
PZ-B12A	Upgradient of gypsum stack, downgradient of processing facility	Semi-annual
PZ-B18A	Upgradient of gypsum stack west of processing facility	Semi-annual
PZ-B20B	Upgradient of gypsum stack, east of processing facility	Semi-annual
PZ-B22B	Downgradient of facility, east of gypsum storage facility	Semi-annual
PZ-B16A	West of gypsum storage facility	Semi-annual

Table 3-2: Analytical Methods for Long-Term Groundwater Sampling

Analyte	Method	Reporting Limit (RL)	Units
Field Parameters			
pH	Field Meter	±0.1	SU
Specific Conductivity	Field Meter	5	µmho/cm
Temperature	Field Meter	0.1	ºC
Turbidity	Field Meter	±0.1	NTU
Dissolved Oxygen	Field Meter	0.1	mg/L
General Chemistry			
Alkalinity	SM 2320B	5	mg/L
TDS	SM 2540	10	mg/L
Major Anions			
Fluoride	EPA 300.0	0.1	mg/L
Chloride	EPA 300.0	0.2	mg/L
Sulfate	EPA 300.0	0.3	mg/L
Nitrate/Nitrite	EPA 353.2	0.1	mg/L
Major Cations (Dissolved)			
Calcium	EPA 200.7	1	mg/L
Magnesium	EPA 200.7	1	mg/L
Potassium	EPA 200.7	1	mg/L
Sodium	EPA 200.7	1	mg/L
Metals/Metalloids (Total)			
Aluminum	EPA 200.7	0.1	mg/L
Arsenic	EPA 200.8	0.003	mg/L
Cadmium	EPA 200.8	0.0002	mg/L
Chromium	EPA 200.7	0.006	mg/L
Phosphorus	EPA 200.7	0.1	mg/L
Selenium	EPA 200.8	0.002	mg/L

RL is subject to change based on laboratory capabilities at time of sample submittal.

FIGURES


Legend
CD Sample Location
Simplot Monitoring Wells
2013 RCRA Monitoring Wells
Simplot Monitoring Wells - Abandoned
Long-Term Sampling Locations
J.R. Simplot Ownership
Sections
Simplot Topo 2009
Pre-Facility Topography (CI = 200 ft)
Pre-Facility Topography (CI = 20 ft)
SIMPLOT PHOSPHATES LLC
ROCK SPRINGS PLANT
FIGURE 2-1
GROUNDWATER SAMPLING LOCATIONS
DATE: OCT 05, 2018
BY: BC
FOR: MKL
FORMATION ENVIRONMENTAL
Feet
0
1,000
2,000
N
MAIN PROCESSING FACILITY
COOLING WATER POND
AUXILIARY POND
PROCESS POND
GYPSUM STACK
GROUNDWATER COLLECTION DITCH
CD Inlet
CD
CR 27/Aspen Mountain Rd
430
PZ-B20A
PZ-B20B
PZ-B20C
PZ-B12A
PZ-B12B
PZ-B12C
PZ-B19A
PZ-B19B
PZ-B19C
PZ-B13A
PZ-B13B
PZ-B13C
PZ-B21A
PZ-B21B
PZ-B21C
PZ-B22A
PZ-B22B
PZ-B18A
PZ-B18B
PZ-B18C
PZ-B9
(location to be abandoned)
PZ-B7
PZ-B15A
PZ-B15B
PZ-B4
PZ-B3
PZ-B17A
PZ-B17B
PZ-B17C
PZ-B10A
PZ-B10B
PZ-B10C
PZ-B6
PZ-B2
PZ-B11A
PZ-B11B
PZ-B11C
PZ-B8
PZ-B5
PZ-B1
PZ-B1R
PZ-B14
PZ-B16A
PZ-B16B
PZ-B16C
PZ-B23A
PZ-B23B
PZ-B23C
8
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APPENDIX 1.B

PHOSPHOGYPSUM STACK SYSTEM CONSTRUCTION AND OPERATIONAL REQUIREMENTS

I. Phosphogypsum Stack System general criteria[1]

A. Phosphogypsum Stack Systems. The purpose of this document is to ensure the physical integrity of impoundments used to manage Phosphogypsum and Process Wastewater generated during production of phosphoric acid and phosphate fertilizer. This document establishes the minimum design, construction, operation, inspection, and maintenance requirements to ensure that the Phosphogypsum Stack System impoundments meet critical safety standards and do not cause unplanned releases to the environment. These requirements include maintaining inspection Logs and developing and maintaining plans to respond to emergency conditions.

1. Performance standards. A Phosphogypsum Stack System shall be designed, constructed, operated, maintained, closed, and monitored to control and minimize the movement of waste or other materials into the environment.

2. Phosphogypsum Stack System operation plan. Within six (6) months of the Effective Date, Simplot shall have a written operation plan that provides detailed instructions for the daily operation of the Phosphogypsum Stack System. Simplot shall maintain the operation plan at the Facility, and it will be accessible to operators of the Phosphogypsum Stack System. Required components of an operation plan are found in Section VIII.E.

3. Groundwater monitoring. The Facility shall perform Groundwater monitoring and reporting as described in Appendix 1.A (Groundwater Requirements).

4. Surface Water[2] management. Phosphogypsum Stack Systems shall be operated for the collection, control, recycling and/or treatment of Run-off[3] from the systems as necessary to meet the applicable water quality standards of the State of Wyoming.

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[1] All test methods, standards, and other similar protocols referenced in this appendix shall include any future amendments or replacements.
[2] See definition of "Surface Waters of the State" in Appendix 9.
[3] "Run-off" means any rainwater, Leachate, or other liquid that drains over land from any part of a Phosphogypsum Stack System.

5. Leachate management. Any Leachate emanating from a Phosphogypsum Stack System shall be routed to a Return Pond[4] to be contained within the system or recirculated to the production plant; or if discharged, treated (if required) to meet the applicable water quality standards and requirements of the State of Wyoming.

6. Interim Stack System Management Plan ("ISSMP"). Within six (6) months of the Effective Date, Simplot shall submit to the EPA for approval, an ISSMP for the Phosphogypsum Stack System. The ISSMP shall provide instructions for two (2) years of operation and management of the Phosphogypsum Stack System. The ISSMP shall provide instructions for two (2) years of operation and management of the Phosphogypsum Stack System should a shutdown occur such that no phosphoric acid will be produced at the Facility for up to a two (2) year period. By July 1 of each following year, Simplot shall revise the ISSMP and submit such revisions to the EPA for approval, taking into account the Process Wastewater levels and the existing configuration of the Phosphogypsum Stack System as of June 1 of that year. The ISSMP shall be designed to protect human health and the environment and shall include:

   a. A detailed description of Process Wastewater management procedures that will be implemented so that the Phosphogypsum Stack System operates in accordance with all applicable requirements in this Section. These procedures shall address the actual Process Wastewater levels present at the Facility as of June 1 of each year, and shall assume that the Facility will receive average annual precipitation during the subsequent two (2) year period;

   b. A detailed description of the required procedures for the daily operation and routine maintenance of the Phosphogypsum Stack System (including required environmental sampling and analyses), as well as for any maintenance or repairs recommended following annual inspections of the Phosphogypsum Stack System;

   c. Identification of all machinery, equipment, and materials necessary to implement the plan as well as actions that shall be taken to assure the availability of these items during the planning period;

[4] The phosphoric acid wastewater decanted from the Phosphogypsum Stack flows to what is often referred to as the Return Pond, return surge pond, process pond or decant pond.

d. Identification of the sources of power or fuel necessary to implement the plan as well as the actions that would be taken to assure the availability of power or fuel during the planning period; and

e. Identification of the personnel necessary to implement the plan, including direct labor required for paragraphs (a) - (b) above, and any necessary direct supervisory personnel, as well as the actions that shall be taken to assure their availability and any required training of these personnel.

B. No ISSMP is required for a closed Phosphogypsum Stack System, or one undergoing closure, or for which an application for a closure permit has been submitted where permitting requirements apply.

II. Assessment of existing Perimeter Dikes for Phosphogypsum Stack Systems

A. Except for Perimeter Dikes that are Inactive and will not be put into service, or that have already been approved by the EPA or the State of Wyoming as meeting or equivalent to the criteria set forth in (2)(a) - (c) below, within six (6) months of the Effective Date, Simplot shall submit to the EPA documentation that the existing Perimeter Dikes have been assessed and certified by a Third-Party Engineer that they have been:

1. Constructed or modified to address Freeboard, Perimeter Dike seepage, factors of safety, and slope stability in accordance with a permit issued by the State of Wyoming; or

2. Engineered or retrofitted, to be in compliance with the following:

a. Cross section design

i. Both of the Inside[5] and Outside[6] slopes shall be no steeper than two horizontal to one vertical (2H:1V).

ii. The design shall provide positive seepage control features such as:

(a) Cut-off trench in natural soil foundations
(b) Clay core or other impermeable core material
(c) Blanket drain

[5] The face of the Dike in contact with the impounded liquids.
[6] The face of the Dike not in contact with the impounded liquids.

(d) Chimney drain and Toe Drain
(e) Geomembrane or composite Liner on Inside slope

iii. The top of the Perimeter Dike and the Toe shall be accessible for maintenance and inspection.

b. Freeboard provisions

i. The design Freeboard of an above-grade Perimeter Dike shall not be less than five (5) feet unless a Freeboard of less than five (5) feet is justified based on the results of seepage and stability analyses, incorporating the evaluations described in (b)(ii) below, or was previously approved by EPA. However, in no event shall the Freeboard of an above-grade Perimeter Dike be less than three (3) feet.

ii. Freeboard shall be determined by generally accepted good engineering practices and shall include, at a minimum, evaluation of Wind Surge, Wave Height and Wave Run-up analysis, erosion protection measures, and protection of Dike integrity and inner rim ditch geometry.

iii. Sustained wind speed used for the analyses listed in (b)(ii) above shall be defined as a sustained wind speed for a 10-minute duration.

c. Design factors of safety and slope stability

i. <u>Stability analysis</u>. A stability analysis shall be performed. A seepage or flow net analysis shall be made, when applicable, for use in the stability analysis. The stability analysis shall consider the minimum water level as well as the water level at the design Freeboard on the upstream slope of the Perimeter Dike, and possible fluctuations of the tail water level.

ii. <u>Design safety factors</u>. The minimum safety factors are: 1.75 for horizontal shear at base of fill; 1.5 for horizontal shear within the fill due to seepage through the outer face; 1.5 for horizontal shear or circular arc failure through the foundation soils; and 1.5 for protection against shear failure of any circular arc in either the Inside or Outside slope. It is imperative that water pressure distribution be included in the analyses; or

iii. Evaluation by a Third-Party Engineer who certifies the safety and stability of the Perimeter Dikes in accordance with (2)(c)(i) - (ii) of this Section; or

iv. Evaluation by a Third-Party Engineer who certifies the safety and stability of the Perimeter Dikes meets an alternate design safety factor and that this alternate design safety factor has been approved by EPA.

B. Within nine (9) months of a final determination that the safety and stability of a Perimeter Dike cannot be certified in accordance with (2)(c)(i) - (iv) of this Section, Simplot shall either: (a) submit to EPA for approval: a proposal to upgrade or retrofit the Perimeter Dike to comply with the requirements of Section II(A)(2), and any interim measures recommended by a Third-Party Engineer; or (b) take the Perimeter Dike out of service as soon as practicable but no later than ninety (90) days after a final determination that the safety and stability of a Perimeter Dike cannot be certified, and that the Perimeter Dike cannot or will not be upgraded or retrofitted to comply with the requirements of Section II(A)(2).

C. Simplot, with any Perimeter Dike in need of upgrade, retrofit, or de-servicing, shall implement EPA's approval of the proposal submitted in accordance with (B) within six (6) months or as soon as practicable, weather permitting.

D. At the time the assessment is performed pursuant to Section II(A)(2), a Third-Party Engineer shall also determine, in writing, whether the existing Phosphogypsum Stack System is equipped with Process Wastewater conveyance/containment capabilities that conform to the following design requirements:

1. Conveyance ditches, pumps, pipes, and hydraulic structures located within a Phosphogypsum Stack System shall have adequate capacity to circulate the Process Wastewater stream(s), if applicable, and to contain or transfer Run-off from the Process Watershed[7] upstream of the water control structures resulting from the greater of a storm event from a combined peak precipitation and snow-melt event over a twenty-four (24) hour period using snowfall, precipitation and other meteorological data from a long-term historical record or a 100-year, twenty-four (24) hour

[7] "Process Watershed" means the aggregate of all areas that contribute to or generate additional Process Wastewater from direct precipitation, rainfall Run-off, or Leachate to a Phosphogypsum Stack, Process Wastewater, Return Pond (cooling/surge ponds), collection ponds, or any other storage, collection, or conveyance system associated with the transport of Phosphogypsum or Process Wastewater for a particular Phosphogypsum Stack System.

precipitation value,[8] while maintaining at the same time the required design Freeboard. If provisions are made to contain some of the entire storm surge resulting from such an event within the Phosphogypsum Stack System upstream from the conveyance system or water control structures, then the transfer capacity of the ditches, pumps, pipes, and related structures may be reduced accordingly.

E. Within one year of a final determination that a Phosphogypsum Stack System does not meet the design criteria of (D)(1) above, Simplot shall submit to the EPA, for approval, a proposal to modify the Phosphogypsum Stack System to attain compliance. Such modification shall be completed as soon as practicable, but not later than fourteen (14) months after Simplot receives all necessary governmental permits or approvals, whichever shall occur later.

III. Construction of New Perimeter Dikes

A. Design

1. Site investigation. The general area desired for construction of a proposed Perimeter Dike shall be carefully inspected by a Third-Party Engineer prior to selection of the exact location for the Perimeter Dike. Areas of uneven natural subsidence, sinkholes, pockets of organic matter, or other unstable soils shall be avoided, unless special provisions are made for their mitigation.

2. Soil testing. A program of soil sampling and adequate testing shall be performed to determine the characteristics of the foundation material that will support the proposed Perimeter Dike, and of the material to be used for construction of the Perimeter Dike.. Sampling and tests shall be determined by a Third-Party Engineer that may include borings, test pits, or in-place samples from the associated exposed excavation face. All borings and/or test pit explorations shall be logged using a recognized engineering soil classification system, with location and depths of all samples recorded on the Log. Tests shall be performed to determine in-place densities, shear-strength, and permeabilities of the foundation and embankment soils. Tests on foundation soils shall be performed either on undisturbed samples or on the in-place soil. Tests on embankment soils shall be performed on samples remolded to the densities and moisture contents to be used in construction.

[8] See Wyoming Water Development Office's Probable Maximum Precipitation Study, December 2014 (as updated). Table 11.5 has a 100-year, 24 hour precipitation value for Western Rocky Mountains, west divide.

3. Cross section design. The crest on the top of the Perimeter Dike shall be graded toward the Inside Slope or the Outside Slope. If the Perimeter Dike exceeds ten (10) feet in height and crest Run-off is directed toward the Outside slope, then Run-off controls shall be used to protect the Outside Slope against erosion. Both Inside and Outside Slopes shall be no steeper than two-and-one-half (2.5) horizontal to one (1.0) vertical (2.5H:1V). Seepage control shall be provided by means of a Liner constructed in accordance with Paragraph 25(b) of the Consent Decree, Appendix 7 (Alternative Liner Demonstration), and Section VI of this Appendix, placed on the Inside Slope of the Perimeter Dike.

4. Freeboard provisions. The design Freeboard of an above-grade Perimeter Dike shall not be less than five (5) feet unless a Freeboard of less than five (5) feet is justified based on results of seepage, stability, and Wave Run-up analyses. However, in no event shall the design Freeboard of an above-grade Perimeter Dike be less than three (3) feet unless the Dike is below grade pond/ditch, then Freeboard shall not be less than (2) feet.

5. Design factors of safety and slope stability of Perimeter Dikes

   a. Stability analysis. A stability analysis shall be performed. A seepage or flow net analysis shall be made, when applicable, for use in the stability analysis. The stability analysis shall consider the minimum fluid level as well as the fluid level at the design Freeboard on the upstream slope of the Perimeter Dike, and possible fluctuations of the tail water level.

   b. Design safety factors for Perimeter Dikes. The minimum safety factors for Perimeter Dikes are: 1.75 for horizontal shear at base of fill; 1.5 for horizontal shear within the fill due to seepage through the outer face; 1.5 for horizontal shear or circular arc failure through the foundation soils; and 1.5 for protection against shear failure of any circular arc in either the Inside or Outside Slope. In determining design safety factors, water pressure distribution must be addressed.

B. Site preparation. In accordance with specifications provided by the Third-Party Engineer, ground that will become the foundation of Perimeter Dikes shall be stripped of vegetation and organic detritus or residue, including muck, mud, slimes, or other material which would flow or undergo excessive consolidation under heavy loading. All earth foundation surfaces on which fill is to be placed shall be scarified, or moistened and compacted, prior to spreading a first course of fill material. The Perimeter Dike base shall be well-drained during construction, except when placing hydraulic fill.

C. Material to be used. Material used for Perimeter Dikes shall be free of extraneous matter that could affect the compactibility, density, permeability, or shear strength of the finished Perimeter Dike (e.g., stumps, vegetation, trees, debris). Tailings may be used for Perimeter Dike fill when such a completed Perimeter Dike will meet the seepage and structural requirements above.

D. Process Wastewater control design. Conveyance ditches, pumps, pipes, and hydraulic structures located within a Phosphogypsum Stack System shall have adequate capacity to circulate the Process Wastewater stream(s), and to contain or transfer Run-off from the Process Watershed upstream of the water control structures resulting from the greater of a combined peak precipitation and snow-melt event over a twenty-four (24) hour period using snowfall, precipitation and other meteorological data from the long-term historical record or a 100-year, twenty-four (24) hour precipitation value while maintaining, at the same time, the design Freeboard of the Perimeter Dike. If provisions are made to contain all or part of the storm surge resulting from such event within the Phosphogypsum Stack System upstream from the conveyance system or water control structures, then the transfer capacity of the ditches, pumps, pipes, and related structures may be reduced accordingly.

E. Methods of construction

1. Each new Perimeter Dike shall be constructed to meet or exceed the minimum safety requirements of this Section and the specifications and design for that Perimeter Dike. Appropriate earthmoving equipment shall be used to place materials in the Perimeter Dike. The soil shall be compacted and density tests shall be performed to ensure that the designed densities are obtained. A representative of the Third-Party Engineer shall be present on-site during construction of the Perimeter Dike and Liner, and during construction and installation of spillways and penetrations through the Perimeter Dike or Liner. The EPA shall be notified of the date on which construction of a new Perimeter Dike will begin.

2. Areas around any water level control structure pipe, conduit, or surface of discontinuity between materials within the mass of the Perimeter Dike shall be carefully inspected and action taken to avoid potential concentration of seepages, and to ensure that soils under and around a culvert are uniformly compacted and are in continuous contact with the external culvert surface. All

penetrations through the Liner on the upstream slope of the Perimeter Dike shall be made using water-tight joints or connections that shall be capable of maintaining their integrity under all in-use conditions.

3. All pipes and joints in pipes or conduits extending through a Perimeter Dike shall be made leak-proof and shall be constructed of materials suitable for the fluids carried and the load imposed. To avoid leaks associated with differential settlement, conduits through Perimeter Dikes shall not be rigidly supported by piles or piers. Backfill around conduits shall be of a density that is equal to or greater than that of the surrounding embankment. Particular attention shall be devoted to the lower third of the conduit.

IV. Operational requirements for Perimeter Dikes

A. All Perimeter Dikes shall be operated to maintain the required Freeboard, unless temporary incursions into the design Freeboard are demonstrated to be safe in accordance with (B) of this Section, below. Each Perimeter Dike shall be inspected as prescribed in this document.

1. Vegetative cover adequate to inhibit wind and water erosion shall be established and maintained on the Outside Slope of the Perimeter Dike. Such vegetation shall be maintained in such a manner (e.g., height and density) as to permit visual inspection; or

2. In areas where historically evapotranspiration exceeds precipitation, an alternative method may be used to inhibit wind and water erosion on the Outside Slope of the Perimeter Dike. The alternative method must be certified by a Third-Party Engineer as providing erosion protection equivalent to that of a vegetative cover; and

3. The outside Toe of all operational Perimeter Dikes shall be maintained free of trees, or other woody plant growth whose roots may breach the Piping and compromise integrity of the Perimeter Dike.

B. Temporary use of design Freeboard to prevent a release may be authorized in accordance with Appendix 1.D (Critical Conditions and Temporary Measures).

C. A completed new Perimeter Dike shall be thoroughly inspected prior to the placement of Process Wastewater behind it. Spillways and water level control structures shall be certified by a Third-Party Engineer as meeting all specifications of the design, including the degree of compaction of the fill. Legible photographs, either aerial or ground, shall be used in documenting this initial inspection, but shall not in and of themselves constitute certification. A complete file describing the items inspected and their condition shall be maintained by the Facility.

D. All Perimeter Dikes and water control structures shall be inspected weekly. Water level elevations and Freeboard compliance shall be determined as part of daily routine inspections. Piezometric water levels within the Perimeter Dike shall be measured quarterly if piezometers have been installed. The inspections shall be made by a qualified company employee or qualified contractor employed or retained by Simplot. The findings of each inspection shall be recorded in a Log.

E. Each Perimeter Dike shall be inspected annually by a Third-Party Engineer experienced in the field of construction and operation of Perimeter Dikes. An annual report related to such an inspection shall be prepared and include recommendations and corrective measures taken. The report shall be retained by Simplot. The annual inspections shall include:

1. Analyses of seepage or other significant items shown on all aerial photographs of the Perimeter Dike since the date of the last annual inspection.

2. Condition of soil surfaces and top and slopes of the Perimeter Dike and in areas within fifty (50) feet downstream from the outside Toe.

3. Review of all periodic inspection reports to evaluate the effectiveness of maintenance done to the Perimeter Dike during the period since the last annual inspection.

4. Examination and interpretation of data obtained from any instrumentation installed in the mass of the Perimeter Dike.

5. Condition of spillway and water level control structures, including all conduits exiting the Perimeter Dike.

F. The following items shall be considered as indicating potential trouble areas that must be documented and closely monitored in subsequent inspections and repaired as necessary:

1. Abnormal dead vegetation or abnormal damp areas[9] on the downstream slope, at the Toe of the slope, or downstream from the Toe of the slope that could be indicative of pond water seepage.

2. Surface erosion, gullying, or wave erosion on the upstream slope of the Perimeter Dike.

3. Surface erosion or gullying on the downstream slope of the Perimeter Dike.

4. Erosion below any conduit through the Perimeter Dike near or at the Toe of the slope of the Perimeter Dike.

V. Lateral Expansions of existing Phosphogypsum Stack Systems

A. Any Lateral Expansion is considered a new Phosphogypsum Stack or Component thereof for purposes of this Section and must be constructed in accordance with the applicable requirements of Section VI.[10]

B. Except for incidental deposits of Phosphogypsum entrained in the Process Wastewater, conditioned Phosphogypsum used as a cushion layer against rock slope, or Phosphogypsum Stack roadbed material, placement of Phosphogypsum outside the Phosphogypsum Stack footprint is considered a Lateral Expansion. For purposes of this Section, the footprint is defined as the outside edge of the Perimeter Dikes used to contain the placement of Phosphogypsum in the Phosphogypsum Stack.

C. Except as provided in Appendix 1.D (Critical Conditions and Temporary Measures), Section IV (Emergency Diversion Impoundment), storage or containment of Process Wastewater outside the footprint of the Phosphogypsum Stack System is considered a Lateral Expansion of the Phosphogypsum Stack System. For purposes of this paragraph, the footprint is defined as the outside edge of the dams, Dikes or ditches used to store or contain Process Wastewater.

VI. Construction requirements for New Phosphogypsum Stacks, or Lateral Expansions of existing Phosphogypsum Stack Systems or Components

A. Minimum design standards. The requirements of this Section are the minimum standards for constructing the following Components of Phosphogypsum Stack Systems after the Effective Date:

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[9] Note: natural groundwater flow does occur below the Phosphogypsum Stack and such flow is observable in the cut-off ditch.

[10] A vertical expansion against a slope, where there is also a horizontal expansion, shall not be considered a Lateral Expansion as long as such vertical and horizontal expansion is part of the approved design and construction plan.

1. New Phosphogypsum Stacks;
2. New Return Ponds;
3. New Auxiliary Holding Ponds (AHP); and
4. New Process Wastewater conveyances.

B. Safety factor. Any new Phosphogypsum Stack or Lateral Expansion shall be designed with an overall factor of safety of 1.5 for any potential failure surface encompassing the impoundment on top of the stack and passing through the Phosphogypsum slope or bottom Liner interfaces or extending into earthen material in contact with the bottom Liner.

C. Run-on control. Simplot shall install and maintain a Run-on[11] management system capable of preventing the greater of flow during peak discharge calculated using precipitation data from a twenty-four (24) hour, 25-year Rainfall Event[12] or from a combined peak precipitation and snow-melt event over a twenty-four (24) hour period using snowfall, precipitation and other meteorological data from a long-term historical record.

D. Run-off control. Simplot shall maintain a Run-off management system to collect and control at least the greater of water volume resulting from a twenty-four (24) hour, 25-year Rainfall Event or from a combined peak precipitation and snow-melt event over a twenty-four (24) hour period using snowfall, precipitation and other meteorological data from a long-term historical record.

E. Liner and Leachate control systems. Phosphogypsum Stacks shall be constructed with a Leachate control system and a composite Liner or an approved alternative as described in Appendix 7 (Alternative Liner Demonstration). The composite liner (consisting of synthetic and non-synthetic layers) is described in (2), below. AHPs shall be constructed with a High-Density Polyethylene (HDPE) Liner of 60 mils or thicker. Return Ponds shall be constructed with composite Liners or an approved alternative. Process Wastewater conveyances shall be constructed with a Liner or pipe(s).

1. Phosphogypsum Stack Liners shall be:

    a. Constructed of materials that have appropriate physical, chemical, and mechanical properties to prevent failure due to:

[11] Any rainwater, Leachate, or other liquid that drains over land from any part of a Phosphogypsum Stack System.
[12] A rainfall event which is characterized by a mean return period of twenty-five years, i.e., a rainfall which has a 96% probability for not being exceeded during any given year.

i. physical contact with the Phosphogypsum, Process Wastewater or Leachate;

ii. exposure to climatic conditions;

iii. the stress of installation;

iv. hydraulic pressures that are anticipated during the operational and closure period of the Liner system; and

v. the supplier of materials for the Liner components shall provide test information accepted by the Third-Party Engineer in support of the capabilities of the materials to meet these needs.

b. Installed upon a base and in a geologic setting capable of providing structural support to prevent the overstressing of the Liner due to settlements and applied stresses;

c. Constructed so that the bottom of the Liner system is not subject to fluctuations of the Groundwater, so as to adversely impact the integrity of the Liner system;

d. Designed to resist hydrostatic uplift if the Liner is located below the seasonal high Groundwater Table; and

e. Installed to cover all surrounding earth that could come into contact with the Phosphogypsum, Process Wastewater or Leachate.

2. Phosphogypsum Stack Liner design standards

a. Phosphogypsum Stacks shall be constructed atop a composite Liner or an approved alternative pursuant to Paragraph 25 of the Consent Decree and Appendix 7.

b. The synthetic component of composite Liners shall consist of a 60-mil or thicker HDPE or equivalent Geomembrane with a maximum water vapor transmission rate of 0.24 grams per square meter per day as determined by the American Society for Testing and Materials (ASTM) Method E96- 80, procedure BW, “Test Methods for Water Vapor Transmission of Materials;” Sections 04.06, 08.03 and 15.09, which document is incorporated herein by reference (and any updates thereof).

c. The non-synthetic component of composite Liners shall consist of one of the following:

i. Soil. A layer of compacted soil at least eighteen (18) inches thick, placed below the Geomembrane, with a maximum hydraulic conductivity of 1×10^{-7} centimeters per second, constructed in six-inch lifts. The Geomembrane layer shall be installed in direct and uniform contact with the compacted soil component to retard Leachate migration if a leak in the Geomembrane should occur. Soil materials used within the top twelve (12) inches of the compacted soil layer immediately below the Geomembrane shall be free from rigid or sharp objects that could damage or otherwise affect the integrity of the Liner. The soil layer component may consist of in-situ soils or compacted imported soils, provided they meet the specifications in 4(d) below for soil components of composite Liners; or

ii. Phosphogypsum. A layer of mechanically compacted Phosphogypsum at least twenty-four (24) inches thick, placed above the Geomembrane, with a maximum hydraulic conductivity of 1×10^{-4} centimeters per second. No rigid or sharp objects that could damage the Liner may be placed within this compacted layer of Phosphogypsum. A layer of compacted Phosphogypsum is not required for any vertical expansion and/or natural ground slopes steeper than 2.5H:1V abutting a vertical or horizontal expansion where Phosphogypsum slurry is discharged into the expansion area within one (1) year of completion of construction as described in Appendix 7.

d. Pursuant to Paragraph 25(b) of the Consent Decree, the non-synthetic layer of a Phosphogypsum Stack composite Liner will not be required for vertical expansions under the following conditions:

i. Where it has been demonstrated to and approved by the EPA that a synthetic Liner alone or in contact with sedimented Phosphogypsum placed in slurry form will be equivalent or superior to a composite Liner designed and installed in accordance with the requirements of Section VI; or

ii. Where it has been demonstrated to and approved by the EPA that a synthetic Liner in contact with sedimented

Phosphogypsum placed in slurry form is equivalent or superior to a composite Liner with twenty-four (24) inches of compacted Phosphogypsum placed above the Geomembrane.

Appendix 7 provides for an alternative liner demonstration.

e. Pursuant to Paragraph 25(b) of the Consent Decree, the non-synthetic layer of a Phosphogypsum Stack composite Liner will not be required for Lateral Expansions where it has been demonstrated and certified by a Third-Party Engineer and approved by the EPA that a synthetic Liner in contact with sedimented Phosphogypsum placed in slurry form, and with consideration of the physical hydrogeological setting of the specific lateral expansion, provides an equivalent or superior degree of protection for human health and the environment, designed and installed in accordance with the requirements of this Section VI.

Appendix 7 provides for an alternative liner demonstration.

3. Any proposed composite Liner design or alternative Liner demonstration shall be accompanied by a detailed construction quality assurance/quality control plan, describing in detail how the design will be properly constructed in the field. For composite Liners using compacted Phosphogypsum, the quality assurance plan shall emphasize the protection of the Geomembrane during placement and compaction of the Phosphogypsum, and on prompt placement of the Phosphogypsum on the Geomembrane. The construction quality assurance/quality control plan must be submitted to the EPA for approval.

4. The following Liner design standards must be met:

a. Standards for geosynthetic layers.

i. Geomembranes shall have factory and field seams whose shear strengths during testing are at least ninety percent (90%) of the specified minimum yield strength for that lining material, and the failure shall occur in the lining material outside the seam area. All field seams must be visually inspected and pressure or vacuum tested for seam continuity using suitable non-destructive techniques.

ii. No large or rigid objects may be placed in the Phosphogypsum Stack System in a manner that may damage the Liner or Leachate collection system and, with the exception of Liners installed at the Toe of the Phosphogypsum Stack, in no case shall such objects be placed within ten (10) vertical feet of the Liner or Leachate collection system, unless approved by the EPA.

iii. HDPE Geomembranes shall meet the specification contained in method GRI GM13 or updates thereof.

iv. Polyvinyl chloride (PVC) Geomembranes shall meet the specification contained in method PGI 1197 or updates thereof.

v. Interface shear strength of the actual components that will be used in the Liner system shall be tested with method ASTM D5321 or an equivalent test method.

vi. In addition, the synthetic Liner material shall be subjected to continuous spark testing or an industry-accepted equivalent test at the production facility prior to delivery to the site for installation. If the continuous spark or equivalent testing detects any defect, then the tested material must be rejected and not used at the site.

b. Soil layer of composite Liners

i. Shall be constructed to preclude, to the greatest extent practicable, lenses, cracks, channels, root holes, pipes, or other structural inconsistencies that can increase the saturated hydraulic conductivity of the soil component. The design shall illustrate and describe those instances in which over-excavation of permeable areas and backfilling may be necessary to seal the permeable area. The soil layer shall be placed and compacted in layers to achieve the design performance;

ii. The permeability shall not be increased above the values specified for the layer, as a result of contact with Leachate from the Phosphogypsum Stack System. Compatibility of the soil layer and Leachate shall be demonstrated by testing the soil layer with actual or simulated Leachate in accordance with EPA Test Method 9100 or an equivalent test method approved by EPA.

iii. The soil layer of the Liner system may consist of in-situ soils or compacted imported soils, provided they meet the specifications for Soil Liners.

iv. Specifications for the soil layer of the Liner system shall contain at a minimum:

(a) Allowable range of particle size distribution and Atterberg limits, to include shrinkage limit;
(b) Placement moisture criteria and dry density criteria;
(c) Maximum laboratory-determined saturated hydraulic conductivity, using simulated Leachate as the saturating and testing liquid;
(d) Minimum thickness of the Soil Liner;
(e) Lift thickness;
(f) Surface preparation (scarification) for tying lifts together; and
(g) Type and percentage of clay mineral within the soil component.

c. The Soil Liner shall be placed using construction equipment and procedures that achieve the required saturated hydraulic conductivity and thickness. A field test section shall be constructed using the proposed construction equipment that will be used to install the Soil Liner and tested to document that the desired saturated hydraulic conductivity and thickness is achieved in the field.

5. A completed new Phosphogypsum Stack System, including the Starter Dike, shall be thoroughly inspected by a Third-Party Engineer prior to the deposition of Process Wastewater in it. The Liner, spillways, degree of compaction of the fill, and the water level control structures shall be certified by a Third-Party Engineer. Legible photographs, either aerial or ground, may be used to document this initial inspection, but shall not in and of themselves constitute certification. A complete file describing the items inspected and their condition shall be made available to the State of Wyoming and/or EPA upon request.

6. <u>Exceptions</u>. No person shall dispose of, or store prior to disposal, any Phosphogypsum except within a permitted Phosphogypsum Stack System, in states where permitting requirements apply. This provision shall not be construed to prohibit any use or reuse of Phosphogypsum not otherwise prohibited by law.

VII. Liner system construction quality assurance/control plans

A. Construction quality assurance/quality control plan. Liner systems shall have a construction quality assurance/quality control plan to provide personnel with adequate information to achieve continuous compliance with the Liner construction requirements. This plan shall include or refer to project specifications and construction methods that use good engineering practices to construct a Liner system and provide for quality control testing procedures and sampling frequencies. Sampling and testing shall be conducted in the field by trained personnel during and after construction is completed. Such personnel shall be under the direction of a Third-Party Engineer to ensure that the Liner system will comply with the standards. The Third-Party Engineer or his qualified designee shall be on-site, at all times, during construction to monitor construction activities. Construction activities include the time during which the protective layer is installed over the Geomembrane to ensure that the placement techniques do not cause damage to the Liner system materials.

B. The Liner system construction quality assurance/quality control plan shall comply with EPA Document EPA/600/R-93/182, and updates thereof shall be presumed to be in compliance with this Section. The following minimum specific elements shall be included in the plan:

1. Responsibility and authority of all organizations and key personnel involved in permitting, designing, constructing, and providing construction quality assurance/quality control of the Phosphogypsum Stack Liner, Phosphogypsum Stack System Liners, or Component Liners shall be described fully;

2. Minimum qualifications of the Third-Party Engineer, his qualified designee(s) and supporting personnel shall be documented in the plan to demonstrate the requisite training and experience necessary to fulfill their identified responsibilities;

3. Procedures and tests that will be used to monitor the installation of the Liner system components shall be described in detail;

4. The sampling activities, sample size, sample locations, frequency of testing, acceptance and rejection criteria, and plans for implementing corrective measures that may be necessary shall be described; and

5. Reporting requirements for construction quality assurance/quality control activities shall be described, including daily summary

reports, observation data sheets, problem identification and corrective measures, and final documentation.

6. All such documents shall be included in a final report.

C. A laboratory experienced in the testing of Geomembranes, independent of the Liner manufacturer and installer, shall perform the required testing that must include, at a minimum, conformance testing for all Geomembranes, and testing of seam shear and peel strength for all Geomembranes.

D. The Third-Party Engineer in charge of construction quality assurance/quality control plans shall provide a signed, sealed final report and record drawings stating that the Liner system has been installed in conformance with the plans and specifications and identifying any deviations.

E. Soil Liner construction quality assurance/quality control plan. In addition to the requirements of (A-D) of this Section, the following requirements apply to construction of the soil layer of Liner systems. All required testing and analysis shall be performed in accordance with generally accepted engineering procedures, such as those promulgated by the ASTM. Parenthetic references to ASTM methods are intended as guidance only.

1. The construction quality assurance/quality control plan shall include a section specifying the performance criteria for the Soil Liner and providing quality control testing procedures and minimum sampling frequencies. In addition, the construction quality assurance/quality control plan shall define the responsibilities of the parties that will be involved in Soil Liner construction and shall present minimum qualifications of each party to fulfill their identified responsibilities.

2. Field and laboratory testing during Soil Liner construction shall be conducted by a qualified field technician representing Simplot. The field technician shall work under the supervision of a Third-Party Engineer with experience in Soil Liner construction.

3. If applicable and prior to Soil Liner installation, an appropriate borrow source shall be located. Suitability of the Soil Liner construction materials from that source shall be determined in accordance with the following:

a. If demonstrated field experience is available from at least three (3) prior successful projects of five (5) or more acres each to document that a given borrow source can meet the requirements of the project specifications, then extensive laboratory testing of the borrow source will not be required.

Additionally, the source of material shall be geologically similar to and the methods of excavating and stockpiling the material shall be consistent with those used on the prior projects. Furthermore, a minimum of three (3) representative samples of the appropriate thickness from the in-situ stratum or from stockpiles of the borrow material proposed for Soil Liner construction shall be submitted to an independent soil testing laboratory to document through index testing that the proposed material is consistent with the material used on prior successful projects. At a minimum, index testing shall consist of percent fines, Atterberg limits and moisture content determinations.

b. If the above demonstrated field experience is not available or cannot be documented, then the following requirements shall be met:

i. A field exploration and laboratory testing program shall be conducted by an independent soil testing laboratory to document the horizontal and vertical extent and the homogeneity of the soil strata proposed for use as Soil Liner material. A sufficient number of index tests from each potential borrow stratum shall be performed to quantify the variability of the borrow materials and to document that the proposed borrow material complies with project specifications. At a minimum, the index tests shall consist of percent fines, Atterberg limits and moisture content determinations.

ii. Sufficient laboratory hydraulic conductivity tests shall be conducted on samples representative of the range in variability of the proposed borrow source (ASTM D-5084). For each such sample, test specimens shall be prepared and tested to cover the range of molding conditions (moisture content and dry density) required by project specifications. The hydraulic conductivity tests shall be conducted in triaxial type permeameters. The test specimens shall be consolidated under an isotropic consolidation stress no greater than ten (10) pounds per square inch and permeated with water under an adequate backpressure to achieve saturation of the test specimens. The inflow to and outflow from the specimens shall be monitored with time and the hydraulic conductivity calculated for each recorded flow increment. The test shall continue until steady state flow is achieved and relatively constant values of hydraulic conductivity are measured (ASTM D-5084).

iii. The borrow source shall only be considered suitable if the hydraulic conductivity of the material, as documented on laboratory test specimens, can be shown to meet the requirements of the project specifications at the ninety-eight percent (98%) confidence level.

iv. Amended soil (in-situ or imported) considered for use shall meet the same standards.

c. Prior to full-scale Soil Liner installation, a field test section or test strip shall be constructed at the site above a prepared sub-base. The field test section or test strip will only be considered acceptable if the measured hydraulic conductivities of undisturbed samples from the field test section or test strip meet the requirements of the project specifications at the ninety-eight percent (98%) confidence level. Field test sections or test strips shall be constructed in accordance with the following requirements:

i. The test section or test strip shall be of sufficient size such that full-scale Liner installation procedures can be duplicated within the test section;

ii. The test section shall be constructed using the same equipment for spreading, kneading and compaction. This includes the same construction procedures (*e.g.*, number of passes, moisture addition and homogenization, if needed) that are anticipated for use during full-scale Liner installation;

d. At a minimum, the Liner test section shall be subject to the following field and laboratory testing requirements:

i. A minimum of five (5) random samples of the Soil Liner construction material delivered to the site during test section or test strip installation shall be tested for moisture content (ASTM D-2216), percent fines (ASTM D- 1140) and Atterberg limits (ASTM D-4318);

ii. At least five (5) field density and moisture determinations shall be performed on each lift of the compacted Soil Liner test section;

iii. Upon completion of the field test section, the thickness of the lift shall be measured at a minimum of five (5) random locations to check for thickness adequacy; and

iv. A minimum of five (5) Shelby tubes or drive cylinder (ASTM D-2937) samples shall be obtained from each lift of the field test section for laboratory hydraulic conductivity testing. Laboratory hydraulic conductivity testing shall be conducted in triaxial type permeameters (ASTM D-5084). The test specimens shall be consolidated under an isotropic consolidation stress no greater than ten (10) pounds per square inch and permeated with water under an adequate backpressure to achieve saturation of the test specimens. The inflow to and outflow from the specimens shall be monitored with time and the hydraulic conductivity calculated for each recorded flow increment. The test shall continue until steady state flow is achieved and relatively constant values of hydraulic conductivity are measured (ASTM D-5084). Alternatively, a sealed double-ring infiltration field test (ASTM D3385) may be used as an alternative to drive cylinder or Shelby tube samples.

e. Full scale Soil Liner installation may begin only after completion of a successful Soil Liner field test section. During Liner construction, documentation of quality control testing shall be maintained and made available to the EPA upon request, to document that the installed Liner conforms to approved project specifications. The testing frequencies for quality control testing are specified below; however, during construction of the first five (5) acres of the Liner, these frequencies shall be doubled. Samples shall be obtained from random locations selected by a Third-Party Engineer. If there are indications of a change in material properties, product quality or construction procedures during Liner construction, then additional tests shall be performed to determine compliance.

F. Field testing during Liner system installation. The following field tests shall be performed:

1. Prior to the laying of the Liner materials, and, if applicable, the Liner sub-base shall be compacted to the specified density. Density tests shall be conducted at a minimum rate of two tests per acre:

a. A minimum of two (2) moisture content and field density determinations shall be conducted per acre per lift of the compacted Liner. The degree of compaction shall be checked using the one-point field Proctor test or other appropriate test procedures; and

b. A minimum of four (4) thickness measurements shall be conducted per acre per lift of the compacted Liner.

G. Laboratory testing during Liner installation. The following laboratory tests shall be performed:

1. Percent fines (ASTM D-1140) of the Liner construction material shall be determined at a minimum frequency of two (2) tests per ace per lift of installed Liner;

2. Atterberg Limits determinations shall be performed on one (1) sample per acre per lift of installed Liner; and

3. Hydraulic conductivity testing of Shelby tube or drive cylinder (ASTM D-2937) samples of the compacted Liner shall be performed at a minimum frequency of one (1) test per acre per lift. Laboratory hydraulic conductivity tests shall be conducted in triaxial type permeameters (ASTM D-5084). The test specimens shall be consolidated under an isotropic consolidation stress no greater than ten (10) pounds per square inch and permeated with water under an adequate backpressure to achieve saturation of the test specimens. The inflow to and outflow from the specimens shall be monitored with time and the hydraulic conductivity calculated for each recorded flow increment. The test shall continue until steady state flow is achieved and substantially constant values of hydraulic conductivity are measured.

a. If the test data from a Liner section does not meet the requirements of the project specifications, then additional random samples may be tested from that Liner section. If such additional testing demonstrates that the thickness and hydraulic conductivity meet the requirements of the project specifications at the ninety-five percent (95%) confidence level, then that Liner section will be considered acceptable. If not, then that Liner section shall be reworked or reconstructed so that it does meet these requirements.

H. <u>Leachate control system standards</u>

1. A perimeter underdrain system designed to stabilize the side slopes of the Phosphogypsum Stack shall be installed above the Geomembrane Liner.

2. Perimeter drainage conveyances used in the Leachate control system shall either consist of covered or uncovered ditches that are lined continuously with the Phosphogypsum Stack Liner, or of chemically compatible Leachate collection pipes. Covered ditches shall have maintenance manholes installed at appropriate intervals. Piped systems shall have manholes or appropriate cleanout structures at appropriate intervals unless the Third-Party Engineer certifies and identifies areas where manholes or cleanout structures in piped systems are not feasible.

3. All Toe Drain or Leachate collection systems must be constructed within the lined system.

I. <u>Liquid containment and conveyance systems</u>

1. HPDE Liners shall be used on all liquid containments and conveyances associated with Phosphogypsum transport, cooling water, and return of Process Wastewater. Exceptions are pumped flow systems contained in pipes or alternative systems that provide an equivalent degree of protection as certified by a Third-Party Engineer.

2. Pump and Piping systems associated with the transport of Phosphogypsum or Process Wastewater that cross Surface Waters of the State must be double contained with chemically compatible materials in a manner that assures that all materials under pumped flow are contained within a lined system in the event of a leak or piping system failure.

VIII. Requirements for Actively Operated/Inactive Phosphogypsum Stacks, Phosphogypsum Stack Systems or Components of Phosphogypsum Stack Systems

A. All Active Phosphogypsum Stack Systems or Components thereof shall be inspected daily, including any noted areas containing critical conditions, (as defined in (3) below), until corrected. Inactive Phosphogypsum Stack compartments, Phosphogypsum Stack slopes, collection ditches and drain outlets shall be inspected at least weekly. At accessible locations that are not submerged, flow from drain outlets shall be checked quarterly.[13] The total areal coverage of Process Wastewater on the Phosphogypsum Stack shall be estimated each month, and the total water inventory on top of the Phosphogypsum Stack shall be estimated annually. The required inspections and estimates shall be carried out by a qualified company employee or contractor employed by Simplot. The results of the required inspections and estimates shall be recorded in a Log maintained by Simplot.

B. Where a leak detection system exists, the amount of liquid removed from any such system must be recorded weekly.

C. Each Phosphogypsum Stack System shall be inspected within one year of the Effective Date and annually thereafter by a Third-Party Engineer with experience in the field of construction and operation of Phosphogypsum Stacks. This inspection shall also include an annual inspection of the associated Perimeter Dike. This annual inspection shall be recorded in a report and include an updated aerial photograph, state the area of the top of the Phosphogypsum Stack, and the current height and elevation of the Phosphogypsum Stack. The annual inspection report shall include recommendations and corrective measures taken as required by (D) below. If corrective measures are not completed by the time of annual submittal, then follow up inspections shall be conducted by the Third-Party Engineer on a quarterly basis with quarterly project reports submitted until completion of all corrective measures. One copy of the annual inspection report shall be submitted to the EPA.

D. In addition to the indicators set forth in Appendix 1.D (Critical Conditions and Temporary Measures), the following items shall be considered among those indicating potential trouble areas that must be documented and closely checked on subsequent inspections and repaired and/or addressed as necessary:

1. Concentrated seepage (e.g., springs or boils) on the face of a Phosphogypsum Stack or at the Toe of the slope without active signs of Piping at the point of seepage.

2. Previously observed localized sloughing at the Toe of the slope of the Phosphogypsum Stack.

3. Previously observed cracks in the surface of the slope or crest of the Phosphogypsum Stack.

[13] If flows can be measured, they will be measured. Otherwise, a notation will be made as to whether flow can be seen or not; if flow is not measured but can be seen, then qualitatively assessed: low, moderate or high flow.

4. Non-flowing or noticeable diminishing drains, and if so, determine the cause and take appropriate action.

5. Observed or suspected damage to the Liner system where there is a release or the potential for a release from the Liner system.

E. Phosphogypsum Stack System operation plans. The following items shall be included in the operation plan for each Phosphogypsum Stack System and shall be approved by a Third-Party Engineer experienced in the construction and operation of Phosphogypsum Stacks:

1. The method used to raise and operate the Phosphogypsum Stacks;

2. A description of the source and consistency of Phosphogypsum used in constructing the Gypsum Dikes and the method used for shaping and/or mechanically working the Phosphogypsum;

3. The overall average exterior slope for raising the Phosphogypsum Stack and the maximum design height of the Phosphogypsum Stack;

4. The procedures used to assure that pipes used to transport Phosphogypsum to the Phosphogypsum Stack System and to return Process Wastewater to the phosphoric acid or fertilizer production facilities are operated and maintained in a safe manner;

5. The procedures used to decant Process Wastewater from the top of the Phosphogypsum Stack;

6. The location of pumps, spillways, and staff gauges; and

7. Provisions that describe emergency measures to be taken in the event of mechanical failure of a pump, or in the event of a power failure, for any portion of a Phosphogypsum Stack System that relies on pumps or power to operate monitoring equipment or to transfer Process Wastewater and/or precipitation Run-off from low areas to the main Return Pond. Such emergency provisions shall, at a minimum, include:

   a. Back-up power (*e.g.*, on-site power, diesel generator, etc.) and/or back-up pump that would be activated in the event of electrical or mechanical failure; or

   b. Sufficient surge storage capacity or emergency surge capacity within the conveyance system to contain the Process Wastewater stream(s) as well as Run-off from the greater of a storm event generating a combined peak precipitation and snow-melt event over a twenty-four (24) hour period using snowfall, precipitation and other meteorological data from the long-term historical record or a 100-year, twenty-four (24) hour precipitation value; or

c. Increased inspection frequencies or continuous monitoring (e.g., remote video camera or automatic water level control device tied to a warning system) to provide early warning of an imminent spill prior to its occurrence; and an emergency action plan that would be undertaken to prevent or contain an accidental spill.

8. Site-specific water management plan. A site-specific water management plan shall be prepared as part of the required operation plan within six (6) months of the Effective Date, and shall be updated annually to reflect changes in Process Watershed area, available surge capacity, projected water balances and use of any Emergency Diversion Impoundment(s) (EDI) (see Appendix 1.D, Section IV). Simplot shall address in the plan the possibility and/or feasibility that one or more Component areas of the Phosphogypsum Stack System may be closed or otherwise removed from the Phosphogypsum Stack System to reduce the watershed and projected Process Wastewater inventory based on all relevant factors, including: (i) the five (5) year water balance analysis as set forth in (F) below; (ii) whether the removal of any Component areas can be done without compromising plant operations; or (iii) the operability or integrity of the Phosphogypsum Stack System, the effect of any potential removal areas on the operability of the Phosphogypsum Stack System prior to permanent closure, and any legal or regulatory requirements. The updated plan shall be consistent with any water quality-based effluent limits applicable to the Facility. This plan shall specify, at a minimum, a set of specific actions, including minimum Process Water consumption and transfer rates, that are determined to be necessary based on water balance model results for the precipitation scenarios described in subsection (F) below, or when the storage volume, surge capacity or operational Freeboard of the Return Ponds are determined to be inadequate to contain the precipitation from the greater of a storm event generating a combined peak precipitation and snow-melt event over a twenty-four (24)-hour period using snowfall, precipitation and other meteorological data from the long-term historical record or a 100-year, twenty-four (24) hour precipitation value. This analysis will be updated every five (5) years. The site specific-water management plan and annual updates thereof shall be submitted to the EPA.

9. The adequacy of the Facility's site-specific water management plan and emergency measures shall be based on a five (5)-year water analysis as set forth in (F) below.

F. Water balance analysis. The water balance analysis for the site-specific water management plan shall use the first day of the month that succeeds the month of the year with the highest long-term average precipitation total as the beginning date for the analysis, unless the EPA approves the use of an alternate beginning date where a larger volume of precipitation or water accumulation (such as snowmelt) is expected. The analysis shall identify the rates of all water inputs and outputs, any manufacturing production changes, and changes in the Process Watershed area identified in the analysis. A Third-Party Engineer shall verify the accuracy of the analysis. A summary of the analysis and the water balance analysis results shall be included in the annual updated site-specific water management plan required in (8) above.

1. The water balance calculations shall be performed based on data from the Wyoming Water Development Office's Probable Maximum Precipitation Study, December 2014, as updated.[14]

2. The water balance analysis for any Phosphogypsum Stack System shall indicate whether the system storage will be less than any of the following water balance targets:

   a. At the beginning of the snowy or rainy season, the calculated 100-year, twenty-four (24) hour precipitation event plus one-half the value for the 25-year, twenty-four (24) hour rainfall event calculated (in inches) for the area where the Facility is located;

   b. At the end of the snowy or rainy season, the calculated long-term or 100-year, twenty-four (24) hour precipitation event calculated (in inches) for the area where the Facility is located; or

   c. Water levels that exceed impoundment Maximum Design Levels[15] at any time during a year.

3. If the water balance for any Phosphogypsum Stack System indicates that system storage is less than the water balance

[14] Table 11.5 of this document has a 100-year, 24-hour precipitation value.
[15] The engineer-certified maximum water elevation that an impoundment is designed to contain, without failure or overtopping, as determined using generally accepted good engineering practices with appropriate factors of safety.

targets, Simplot must provide reasonable assurance that additional Process Wastewater consumption or management items, not already included as outputs in the water balance analysis, are readily available and capable of maintaining these water balance targets. Use of available storage within an AHP, up to its Maximum Design Levels, may be used to provide this assurance.

4. If the water balance indicates that at any time during the five (5)-year modeling period that Process Wastewater levels, in conjunction with available Process Wastewater consumption or management, will not meet the water balance targets, Simplot must provide additional Process Wastewater consumption or management. Simplot shall also submit an alternative plan and implementation schedule for approval by EPA for the additional consumption or management measures within ninety (90) days of submittal of the water balance analysis. The plan and schedule shall include, at a minimum, the following elements:

   a. A listing and description of the additional Process Wastewater consumption or management to be evaluated, including the identification of items that can be rapidly implemented to achieve the water balance targets;

   b. A list of interim measures that can be implemented to prevent an unpermitted release of Process Wastewater in the event that actual precipitation events contribute to Process Wastewater levels exceeding Maximum Design Levels; and

   c. A proposed schedule for the evaluation, selection, engineering, design, construction, installation or implementation of the items and interim measures needed to increase water consumption, reduce inventories, or any combination of such actions that will result in achievement of the water balance targets.

IX. Contingency plans for operating Phosphogypsum Stack Systems

A. Contingency plan. Except for Phosphogypsum Stack Systems for which a contingency plan already exists, within six (6) months of the Effective Date, Simplot shall prepare a contingency plan to address unplanned releases of Process Wastewater. All contingency plans shall be updated (as necessary) on an annual basis. The elements of such a plan shall address the applicable elements of the “National Response Team’s Integrated Contingency Plan Guidance,” 61 Fed. Reg. 28,641 (June 5, 1996), which is incorporated herein by reference, and shall include plans necessary to respond to emergency situations. The contingency plan shall be maintained at the Facility and be available for inspection by EPA upon request.

B. Training. Simplot shall provide annual training regarding the inspection and operations requirements contained in the contingency plan to appropriate personnel. Newly hired personnel shall receive such training prior to engaging in inspection or operations activities. A training plan consistent with the requirements of contingency plan shall be maintained at the Facility and be available for inspection upon request. Records demonstrating that appropriate personnel have received the necessary training shall be maintained in accordance with Paragraph 74 of the Consent Decree.

APPENDIX 1.C

CLOSURE OF PHOSPHOGYPSUM STACKS/ PHOSPHOGYPSUM STACK SYSTEMS/ COMPONENTS

I. Applicability - Closure of Phosphogypsum Stacks/Phosphogypsum Stack Systems/Components of a Phosphogypsum Stack System

A. The requirements of this Section apply only to a Phosphogypsum Stack, Phosphogypsum Stack System, or Component thereof that has not already undergone permanent closure approved by Wyoming DEQ. If only a portion of a Phosphogypsum Stack System (e.g., lower side slopes) has undergone permanent closure approved by Wyoming DEQ, then only that permanently closed portion of the Phosphogypsum Stack System is released from the requirements of this Section. Any Component that has been closed after 2005 shall be subject to the Long-Term Care provisions of Section VI.

II. General Requirements for the Phosphogypsum Stack System Closure Plans

A. Applicability. The following requirements apply to a Phosphogypsum Stack, Phosphogypsum Stack System, or Component thereof.

1. Initial Closure Plan. The approved Initial Closure Plan is attached as Appendix 8 (Initial Closure Plan for the Facility), and meets the requirements set forth in Appendix 2 (Financial Assurance), Section II (1)(a). Any update to the Initial Closure Plan must include the following requirements:

2. Physical Configuration. A description of the physical configuration of the Phosphogypsum Stack System for that period of time for which a Cost Estimate has been prepared in accordance with Appendix 2.

3. Site-Specific Water Management Plan. A site-specific water and sludge management plan describing the procedures to be employed during closure of the Phosphogypsum Stack System to manage the anticipated volume of Process Wastewater and Leachate. The Closure Plan shall address the anticipated ponded water inventory at the beginning of the closure period, anticipated closure sequence, water balance during the closure period, Phosphogypsum Stack drainage during the closure period and Long-Term Care period, adequacy of available surge storage capacity through the closure period, treatment, evaporation or consumption rate (including neutralization, if applicable), and disposition of ponded Process Wastewater and Leachate, both during the Phosphogypsum Stack System closure period and Long-Term Care activities.

4. Cost Estimate. Simplot shall submit a Cost Estimate in accordance with the requirements in Appendix 2, Section II.

5. A description of all construction work necessary to properly undertake Phosphogypsum Stack System Closure.

III. Permanent Closure Requirements for Phosphogypsum Stacks/Stack Systems

A. Notification and Closure Application. At least ninety (90) days before the permanent deactivation of a Phosphogypsum Stack System or within thirty (30) days following a decision to permanently cease operations, whichever is later, Simplot shall notify the Wyoming DEQ and EPA. Within two-hundred-and-seventy-five (275) days of the notification, Simplot shall submit for approval a closure application (Appendix 1.E), including a Permanent Phosphogypsum Stack System Closure Plan ("Permanent Closure Plan"), to EPA and Wyoming DEQ, as described below.

B. Permanent Closure Plan. The Permanent Closure Plan shall satisfy the requirements of this Section or shall contain an explanation of why the requirements are not applicable. Valid information on record in an existing permit or approved Groundwater monitoring plan may be used to satisfy the applicable requirements of this Section.

C. General information report. This report must be submitted for approval to EPA and Wyoming DEQ, and shall contain:

1. Identification of the Phosphogypsum Stack System;
2. Name, address and phone number of primary contact persons;
3. Identification of persons or consultants preparing this report;
4. Present property owner and Phosphogypsum Stack System operator;
5. Location by township, range and section and latitude and longitude of the Phosphogypsum Stack System;
6. Total acreage of the Phosphogypsum Stack System;
7 Map of the property as set forth in Appendix 3 (Site Maps); and
8. History of the Phosphogypsum Stack System, including construction dates and a general description of operations.

D. Area information report. This report details the area in which the Phosphogypsum Stack System is located. The report must use verifiable information. The term "area" means that area that may affect or be affected by the Phosphogypsum Stack System, and at a minimum includes the land within a one-mile radius of the Phosphogypsum Stack System. The report shall be supplemented by maps and cross-section drawings. The following topics shall be addressed in the report:

1. Topography;
2. Hydrology, including Surface Water[1] drainage patterns and hydrologic features such as Surface Waters, springs, drainage divides and wetlands;
3. Geology, including the nature and distribution of lithology, unconsolidated deposits, major confining units and sinkholes;
4. Hydrogeology, including depth to Groundwater Table, Groundwater flow directions, recharge and discharge areas used by public and private wells within one mile of the Phosphogypsum Stack System;
5. Groundwater and Surface Water quality; and
6. Land use information. The report shall include a discussion and maps indicating:

    a. Identification of adjacent landowners;
    b. Zoning;
    c. Present land uses; and
    d. Roads, highways, rights-of-way, or other easements.

E. <u>Groundwater monitoring plan</u>. The Groundwater monitoring plan and most recent report submitted to Wyoming DEQ.

F. <u>Assessment report of the effectiveness of existing Phosphogypsum Stack System design and operation</u>. Based on the area information report and the Groundwater monitoring plan, a written assessment shall be prepared that discusses the effects of the Phosphogypsum Stack System on adjacent Groundwater and Surface Waters, and the Phosphogypsum Stack System area. Specific concerns to be addressed are:

1. Effectiveness and results of the Groundwater monitoring plan; and
2. Effects of Surface Water runoff, drainage patterns, and existing storm water controls.

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[1] See definition of "Surface Waters of the State" in Appendix 9.

G. Performance standards. The Permanent Closure Plan shall be developed to address the following performance standards.

1. Phosphogypsum Stack System Closure shall be designed to protect human health and the environment by:

a. Controlling, minimizing or eliminating the post closure escape of Phosphogypsum, Process Wastewater, Leachate, and contaminated runoff to Groundwater and Surface Waters;

b. Minimizing stack infiltration other than allowed Process Wastewater recirculation as described in Appendix 8 (Initial Closure Plan);

c. Being compatible with any required Groundwater or Surface Water Corrective Action Plan; and

d. Minimizing the need for further maintenance.

H. A Permanent Closure Plan for Phosphogypsum Stacks, Phosphogypsum Stack Systems or Components thereof shall include a Final Cover designed to protect human health and the environment by:

1. Promoting drainage off the Phosphogypsum Stack;
2. Minimizing ponding, if necessary;
3. Minimizing erosion;
4. Minimizing infiltration into the Phosphogypsum Stack (except as allowed through Process Wastewater recirculation and evaporation); and,
5. Functioning with little or no maintenance.

I. Closure of ponds and drainage conveyances storing Process Wastewater and Leachate shall be designed to protect human health and the environment by:

1. Treating or removing from the ponds and drainage conveyances all Process Wastewater and Leachate through:

a. The return of the Process Wastewater and Leachate to the manufacturing process; or
b. Returning Process Wastewater and Leachate to the Phosphogypsum Stack for evaporation; or,

c. Transfer of Process Wastewater and Leachate to another pond permitted in accordance with this Appendix; or

d. In-situ treatment of the Process Wastewater and Leachate, or

e. Treatment and subsequent discharge of the Process Wastewater and Leachate under an appropriate discharge permit.

2. Placing any Phosphogypsum and/or sludges removed from a pond, settling basin, or drainage conveyance into an Active Phosphogypsum Stack operated in accordance with this Section or an Inactive Phosphogypsum Stack undergoing Phosphogypsum Stack System Closure in accordance with this Section. The Permanent Closure Plan shall contain a detailed description of procedures for removing and/or treating the Phosphogypsum and/or sludges, methods for sampling and testing surrounding soils and criteria for determining the extent of removal required to satisfy the closure performance standards.

J. <u>Closure Overview, Schedule and Environmental Considerations</u>: To meet the requirements in Section III.G, the Permanent Closure Plan for the Facility will incorporate the following design elements and approximate schedule.

1. Process Water and Leachate management.

a. As the annual net evaporation at the Facility is over 37 inches, the proposed water management plan for this Facility relies on evaporating a significant portion of the remaining Phosphogypsum Stack System Wastewater during the initial 13-year period following deactivation.

b. On or before Year 12, Simplot will construct a treatment plant that is capable of treating all drainage water seeping from the Phosphogypsum Stack with limestone and lime to reach a pH of 7.0. A lower treatment pH may be considered by EPA if Simplot can demonstrate that treatment objectives (metals removal and neutralization of acidity) can be met. During Year 13 both evaporation and treatment will occur. The treatment plant will treat all Phosphogypsum Stack drainage water in Year 14.

2. Treated water, solids management and closure schedule.

a. The treated water and associated lime treatment solids will be stored and evaporated in lined ponds that will be constructed on top of the closed Phosphogypsum Stack.

b. The Phosphogypsum Stack System will be closed in phases as expeditiously as practicable. The following is an approximate plan and schedule for closure that will be the basis for the schedule described in the Phosphogypsum Stack System closure operation plan in Section M. EPA may approve, within its discretion, a request to adjust this schedule if the information provided by Simplot substantiates its request for a schedule change.

Phase 1 – (Years 1 through 5)

- Close all side slope areas and surface areas of the Phosphogypsum Stack, with the exception of:1) areas that are utilized to store or evaporate excess Process Wastewater; and 2) active portions of the lined return water flow channel to the surge pond and return water pump station.

- Construct benches and install seepage collection drains on the side slopes as necessary to allow for the collection of drainage.

- Install perimeter seepage collection Toe Drains on the north and west sides of the Phosphogypsum Stack and at any other locations as necessary to control water flow.

- For stormwater control, construct lined Surface Water swales and Toe ditches on the north and west sides of the Phosphogypsum Stack.

- Once seepage has subsided, finish grade, amend and cover side slopes of Phosphogypsum Stack with 12-inches of locally available soil and grass/vegetate slopes.

- Grade and construct lined Surface Water detention pond on west side of Phosphogypsum Stack. The detention pond will be provided with a 60-mil HDPE bottom Liner and a vegetated, two-foot thick vegetated soil cover. All Surface Water run-off from the closed Phosphogypsum Stack side slopes will be routed through this pond. Surface areas that are no longer needed for treatment and closure operations will be closed and revegetated.

Phase 2 – (Years 6 through 15)

- All top ponds will be used on an as needed basis for Process Wastewater irrigation and evaporation through year 11.

- On or before Year 12, Simplot will begin construction of a double lime treatment plant that will be capable of treating all Phosphogypsum Stack drainage water by Year 14. It is also anticipated that by the end of Year 13 three of the existing top ponds that will ultimately be used for lime sludge storage and evaporation of treated water will be regraded and provided with a 60-mil HDPE bottom Liner.

- Lining of the remaining top ponds will commence after Year 13 and should be complete by the end of Year 15. Final cover will include a 40-mil HDPE Liner covered with a protective, two-foot thick vegetated soil cover. Surface Water control structures will be installed as needed to direct runoff from the closed top ponds to perimeter Surface Water swales or ditches and then to the lined detention pond on the west side of the Phosphogypsum Stack.

- Process water treatment will commence during Year 13.

Phase 3 – (Years 16 through 50)

- After closure of the top ponds, bench and install seepage collection drains on the remaining side slopes of the Phosphogypsum Stack at locations where they do not already exist.

- Install perimeter seepage collection Toe Drains on the east and south sides of the Phosphogypsum Stack once the return water flow channel has been taken out of service.

- Lined lime sludge storage and evaporation ponds on top of the closed Phosphogypsum Stack will be closed incrementally once seepage rates from the closed Phosphogypsum Stack have reduced sufficiently to warrant closure. Closure of the sludge ponds will include dewatering and drying of the lime sludge materials to a stable consistency that will allow placement of a one-foot thick, vegetated soil cover. Any exposed HDPE Liner materials on the side slopes of the pond, above the top surface of the lime deposits, will be covered with a protective, two-foot thick vegetated soil cover.

- Commence fifty-year Long-Term Care and maintenance program for the closed Facility once final closure activities are completed and certified.

3. Additional environmental requirements.

a. Simplot will conduct a monthly measurement to assess whether fluoride atmospheric emissions from the Phosphogypsum Stack during closure are less than or equal to such emissions during plant operation. Simplot will describe in detail the method used to calculate the emissions. If the emissions are greater than the emissions during plant operation, then Simplot will report to EPA the steps necessary to reduce emissions below the target levels.

b. Fencing shall be installed, and measures shall be taken to prevent human and wildlife intrusion.

c. The areas on top of the Phosphogypsum Stacks that are used for spray irrigation and evaporation and not used for lined sludge/evaporation ponds will be lined with 40-mil HDPE, covered with two (2) feet of soil and planted in native vegetation. Prior to lining these areas, the upper one to two feet of Phosphogypsum will be flushed with treated water. The depth of treated water applied will not be less than four (4) inches over the entire surface to be covered. This flush will reduce the acidity of the upper zone of the Phosphogypsum Stack.

K. Closure design plan. A closure design plan, which includes water and solids management, shall be prepared to meet the performance standards and requirements specified in Section III.G and III.H, above, and shall be based on the area information report, Groundwater monitoring plan, and assessment of the effectiveness of the existing Phosphogypsum Stack System design and operation. The closure design plan shall consist of engineering plans and a report on closing procedures that shall apply to the closing of the Phosphogypsum Stack System and the monitoring and maintenance during the Long-Term Care period. The closure design plan shall include the following information:

1. A plan sheet showing phases of site closing;

2. Drawings showing existing topography and proposed final elevations and grades;

3. For Phosphogypsum Stack Systems or Components thereof, Final Cover installation plans will show the sequence of applying Final Cover, including thickness and type of material that will be used. All Phosphogypsum Stacks, and Components thereof shall have a Final Cover designed to meet the performance standards set forth below. Final Cover shall be placed over the entire surface of the Phosphogypsum Stack. The Final Cover shall be vegetated (to the extent possible in arid climates) with drought-resistant species to control erosion, whose root systems will not penetrate any required low-permeability barrier layer on the top gradient (or an alternative cover approved in accordance with the Consent Decree or Section K). Water balance calculations, based on available climatic data, shall be prepared that estimate the rates and volumes of water infiltrating the cover systems, collected by any Leachate control system, and migrating out of the bottom of the Phosphogypsum Stack or Liner system. Final Cover may consist of synthetic membranes, soils, or chemically or physically amended soils or Phosphogypsum.

    a. Top gradients of Final Cover on Phosphogypsum Stacks shall be designed to prevent or minimize ponding or low spots, and minimize erosion and at a minimum meet one of the following design standards specified in (i) - (iii), below:

        i. The Final Cover on the top gradient shall consist of a barrier soil layer at least 18 inches thick, emplaced in six (6)-inch thick lifts. A final, eighteen (18)-inch thick layer of soil or amended Phosphogypsum that will sustain vegetation to control erosion shall be placed on top of the barrier layer. For unlined Phosphogypsum Stacks, the barrier layer shall have a maximum permeability of 1×10^{-7} cm/sec; for lined Phosphogypsum Stacks, the barrier layer shall have a maximum permeability of 1×10^{-5} cm/sec. If less permeable soils are used, then the thickness of the barrier layer may be decreased to twelve (12) inches, provided that infiltration is minimized to an equivalent degree. A geosynthetic clay Liner system that minimizes infiltration to an equivalent degree may also be used.

ii. A Geomembrane may be used as an alternative to the low-permeability soil barrier for a Final Cover, constructed to preclude precipitation infiltration into the Phosphogypsum Stack. A Geomembrane used in Final Cover shall be a semi-crystalline thermoplastic at least forty (40) mils thick, or a non-crystalline thermoplastic at least thirty (30) mils thick, with a maximum water vapor transmission rate of 2.4 grams per square meter per day, have chemical and physical resistance to materials it may come in contact with, and withstand exposure to the natural environmental stresses and forces throughout the installation, seaming process, and settlement of the Phosphogypsum during the closure and Long-Term Care period. A protective soil or amended Phosphogypsum layer at least twenty-four (24) inches thick shall be put on top of the Geomembrane prior to final closure. Material specifications, installation methods, and compaction specifications shall be adequate to protect the barrier layer from root penetration, resist erosion, and remain stable on the final design slopes. This layer shall include soils or amended Phosphogypsum that will sustain vegetative growth.

iii. In areas where historically evaporation and evapotranspiration exceed precipitation, the Geomembrane option in III.(K)(3)(a)(ii), above, may be used in conjunction with an alternative top cover design in lieu of the twenty-four (24)-inch-thick layer of protective soil or amended Phosphogypsum placed above the Geomembrane. The request for an alternate top cover design must be submitted for approval to EPA.

b. Side slopes and all other grades shall be designed to minimze erosion of the Final Cover material and infiltration except for the following:

i. Top gradient;

ii. Return Ponds;
iii. AHP;
iv. Lime treatment ponds with the definition of the Phosphogypsum Stack System;
v. Process Wastewater and Leachate channels, cooling channels and ditches; and
vi. Toe drainage swales.

c. Such designs shall consider the erosion susceptibility of the material proposed for Final Cover relative to historical precipitation patterns for the area, the ability to establish and maintain vegetation and special maintenance procedures proposed to address infiltration and erosion. In addition, for the side slopes of the Phosphogypsum Stack, the following criteria shall be applicable:

i. The side slopes shall be no steeper than two (2)-feet horizontal run to one (1)-foot vertical rise (2H:1V). If the side slopes of any Phosphogypsum Stack are steeper than 2H:1V, then the closure design plan shall include a stability analysis (accounting for seismic considerations) demonstrating the long-term stability of the area.

d. Cover for the side slope swales, if an aspect of the Phosphogypsum Stack closure design, shall be designed to minimize ponding and low spots, minimize erosion, and infiltration, and at a minimum consist of:

i. A barrier layer which may be either a Geomembrane Liner or re-compacted soil;

ii. An adequate protective soil layer over the barrier layer (if a Geomembrane) that can sustain vegetation;

iii. Unless an alternative cover is approved by EPA, the barrier layer and the protective soil layer for the side slope swales shall conform to the minimum criteria of applicable provisions of Section III, except that the minimum thickness of the Geomembrane, if used in side slope swales, shall be 60-mil (e.g., 60-mil HDPE). The alternative cover, if requested, shall be designed to meet the performance standards for the Final Cover and provide, at a minimum, the equivalent degree of protection (e.g., minimize infiltration, erosion, etc.) as would be achieved if the Final Cover conformed to the criteria set forth in Section III.

e. The Final Cover for Components of the Phosphogypsum Stack System shall be designed to:

  i. Control, minimize or eliminate the post closure escape of Phosphogypsum and other materials contained within the Phosphogypsum Stack, Process Wastewater, Leachate and contaminated runoff to Surface Water and the ground;

  ii. Minimize ponding (except in such circumstances where EPA approves use of a Component for Process Wastewater storage);

  iii. Minimize infiltration; and

  iv. Minimize erosion and future maintenance.

f. The closure design plan, depending on the activities under Section III and the performance standards herein, shall provide for the following:

  i. May require providing a suitable barrier layer (e.g., Geomembrane, re-compacted soil) and an adequate protective soil layer that can sustain vegetation;

  ii. Shall, at a minimum, include material specifications (e.g., soil, fill material), vegetation type, installation methods (e.g., grading, excavation), and compaction specifications adequate to meet the performance standards;

  iii. Shall describe provisions for cover material for Long-Term Care erosion control, filling other depressions, maintaining berms, and general maintenance of the Phosphogypsum Stack System; and

iv. Shall specify the anticipated source and amount of material necessary for proper closure of the Phosphogypsum Stack System.

4. The type of Leachate control system proposed. The Leachate control system shall be designed to prevent releases of Leachate from the Phosphogypsum Stack System.

5. Compliance with Groundwater requirements. The closure design plan shall demonstrate how the Phosphogypsum Stack System will meet applicable Groundwater quality standards of the State of Wyoming. The Groundwater monitoring and sampling schedule may be adjusted for a Phosphogypsum Stack System where Groundwater contamination is not evident or corrective measures have been taken to correct contamination.

6. The proposed method of stormwater control. This shall include control of stormwater on the Phosphogypsum Stack System. Stormwater or other Surface Water that mixes with Leachate shall be considered Leachate and if discharged, shall be treated to meet the permit or regulatory requirements of the State of Wyoming. The stormwater control plan shall meet the requirements of the State of Wyoming.

7. The proposed method of access control. The closure design plan shall describe how access to the closed Phosphogypsum Stack System shall be restricted to prevent any future waste dumping or use of the Phosphogypsum Stack System by unauthorized persons. Restricted access shall remain in force until the Phosphogypsum Stack System is stabilized and there is no evidence that the property is being used as an unauthorized dump site.

8. A description of any proposed final use of the Phosphogypsum Stack and Phosphogypsum Stack System or Component thereof.

L. <u>Closure construction quality assurance plan</u>. A detailed construction quality assurance plan shall be developed for construction activities associated with the closure of the Phosphogypsum Stack System, including each Component of the Final Cover system. The plan shall specify quality assurance test procedures and sampling frequencies. Records shall be kept to document construction quality and demonstrate compliance with plans and specifications. Upon completion of closure activities, a final construction quality assurance report shall be submitted to EPA, prepared by an engineer. The final report shall include at least the following information:

1. Listing of personnel involved in closure construction and quality assurance activities;
2. Scope of work;
3. Outline of construction activities;
4. Quality assurance methods and procedures;
5. Test results (destructive and non-destructive, including laboratory results); and
6. Record drawings.

M. Phosphogypsum Stack System Closure Operation Plan. This plan, as part of the Permanent Phosphogypsum Stack System Closure Plan, shall be designed to protect human health and the environment by:

1. Describing the actions that shall be taken to close the Phosphogypsum Stack System, such as placement of cover, grading, construction of berms, ditches, roads, retention-detention ponds, installation or closure of wells and boreholes, installation of fencing or seeding of vegetation, protection of on-site utilities and easements;
2. Providing a time schedule for completion of closure and Long-Term Care;
3. Containing appropriate references to the closure design plan, area information report, Groundwater monitoring plan, and other supporting documents;
4. Providing an updated Cost Estimate in accordance with Appendix 2 (Financial Assurance);
5. Indicating any additional equipment and personnel needed to complete Stack Closure of the Phosphogypsum Stack System; and
6. Describing any proposed use of the system for water storage or water management.

N. Certification by an Engineer. Information, plans, and drawings presented in support of a closure plan shall be prepared under the direction of, and certified by, an engineer. A letter of appointment shall be submitted by the proper company official confirming that the engineer is authorized to prepare plans and specifications. The engineer shall be required to make periodic inspections during the closing of Phosphogypsum Stack System to ensure closure is being accomplished according to the Permanent Phosphogypsum Stack System Closure Plan.

O. Nothing in this Section is intended to preclude the construction of a lined Return Pond or AHP, sludge storage pond or Evaporation Pond on top of an Inactive or closed Phosphogypsum Stack, as long as the pond is constructed in accordance with the applicable provisions of Appendix 1.B (Phosphogypsum Stack System Construction and Operational Requirements), and as long as the design is included in the closure plan. Within such a Return Pond, AHP, solids or Evaporation Pond, while in use, the requirements for minimizing ponding and establishing vegetation cover are not applicable.

IV. Temporary Deactivation of Phosphogypsum Stack Systems and Components of Phosphogypsum Stack Systems

A. Simplot may request, in writing, a determination by EPA that the provisions of Section III may be deferred in limited circumstances when a Phosphogypsum Stack, Phosphogypsum Stack System or Component thereof will temporarily cease to receive Phosphogypsum or Process Wastewater but Simplot intends for the Phosphogypsum Stack System or Component thereof to become Active in the future. In such circumstances, Simplot shall request approval of a Temporary Deactivation of the Phosphogypsum Stack, Phosphogypsum Stack System or Component thereof. This request must be submitted on a yearly basis until the Phosphogypsum Stack, Phosphogypsum Stack System or Component thereof becomes Active. EPA may authorize a Temporary Deactivation approval for each individual Phosphogypsum Stack, Phosphogypsum Stack System or Component thereof in accordance with this subsection or deny the request for such an approval.

B. Each request shall set forth at least the following information:

1. The specific Phosphogypsum Stack, Phosphogypsum Stack System or Component thereof for which approval of a Temporary Deactivation is sought;

2. A demonstration that current economic or other conditions justify a Temporary Deactivation of the Phosphogypsum Stack or Phosphogypsum Stack System or Component thereof;

3. An estimate of the duration of the Temporary Deactivation of Phosphogypsum Stack System and a demonstration that the Phosphogypsum Stack System or Component thereof is reasonably expected to become Active within this estimated time period; and

4. The most recent ISSMP.

C. If EPA determines that other information is necessary to ascertain if a Temporary Deactivation is warranted, then the applicant must submit the additional information upon request.

D. Upon approval of the Temporary Deactivation by EPA, Simplot must implement the procedures set forth in the approved ISSMP immediately upon the Phosphogypsum Stack System deactivation. The applicant shall also provide any additional such information requested by EPA.

E. If, after review of the information submitted pursuant to (B) and (C) above, EPA determines that Temporary Deactivation has not been justified by Simplot, then Simplot may continue to operate the Phosphogypsum Stack, Phosphogypsum Stack System or Component thereof or permanently close the Phosphogypsum Stack, Phosphogypsum Stack System or Component thereof in accordance with the provisions of Section III.

F. If, at any time during the approved Temporary Deactivation period, EPA requires information to ascertain if the criteria under (B)(1)-(3) of this Section are being met, then Simplot will provide such information within thirty (30) days of the request by EPA.

G. If, after review of the information submitted pursuant to (F) above or otherwise, EPA determines that Simplot has not demonstrated that it satisfies the criteria specified in (B)(1)-(4), then EPA will so notify Simplot of its determination and the provisions of Section III will apply.

V. Stack Closure Procedures

A. <u>Stack Closure inspections</u>. The Permanent Closure Plan must specify which particular closing steps or operations must be inspected and approved by EPA before proceeding with subsequent closure actions.

B. Final survey and record drawings. A final survey shall be performed, after permanent closure is complete, by an engineer or a registered third-party land surveyor to verify that final contours and elevations of the Phosphogypsum Stack System or Component thereof that is the subject to the Permanent Closure Plan are in accordance with the plan as approved by EPA. Aerial mapping techniques that provide equivalent survey accuracy may be substituted for the survey.

1. The survey or aerial mapping information shall be included in a report along with information reflecting the record drawings of the Phosphogypsum Stack System or Component thereof. Contours should be shown at no greater than five (5)-foot intervals.

2. Simplot shall submit this report to EPA in accordance with the closing schedule.

C. Certification of closure construction completion. A certification of closure construction completion, signed, dated and sealed by a Third-Party Engineer shall be provided to EPA and Wyoming DEQ upon completion of closure.

D. Official date of Stack Closure. Upon receipt of the documents required in (B) and (C) of this Section, EPA shall acknowledge by letter to Simplot that notice of termination of operations and Stack Closure has been received. The date of this letter shall be the official date of closure for purposes of determining the beginning of the Long-Term Care period.

E. Use of closed Phosphogypsum Stack Systems. Closed Phosphogypsum Stack Systems or Components thereof, if disturbed, are a potential hazard to public health, Groundwater and the environment. Consultation with and approval by EPA is required before conducting activities that may disturb the closed Phosphogypsum Stack Systems or Components thereof, except for routine maintenance activities.

VI. Long-Term Care for Phosphogypsum Stacks/ Phosphogypsum Stack Systems/Components

A. Long-Term Care period. Simplot shall be responsible for monitoring and maintenance of the Facility, including the applicable requirements of Section III , in accordance with an approved Permanent Phosphogypsum Stack System Closure Plan for fifty (50) years from the date of closure as specified Section V.D above unless a reduced Long-Term Care period is approved by EPA in accordance with (C), below.

B. Before the expiration of the Long-Term Care monitoring and maintenance period, EPA may extend the time period if it is determined that:

1. The closure design or closure operation plan under the Permanent System Closure Plan was ineffective in meeting the standards herein; or
2. The extension of the Long-Term Care period is necessary to protect human health and the environment.

C. Reduced Long-Term Care period. Simplot may request, in writing, a reduced Long-Term Care schedule. EPA may approve, within its discretion, the request if the information provided by Simplot substantiates its claim that the reduced period is sufficient to protect human health and the environment. The request must, at a minimum, demonstrate that the Phosphogypsum Stack System or a Component thereof addresses the criteria of (1)-(4), below and provide any other information relevant to establishing that the reduced period is sufficient to protect human health and the environment:

1. The Phosphogypsum Stack System has been constructed and operated in accordance with approved standards, and has a Leachate control system and/or a Liner that has controlled, minimized or eliminated releases;

2. The Phosphogypsum Stack System has been closed with appropriate Final Cover, that the vegetative cover (or alternative approved in accordance with this Section) has been established, and a monitoring system has been installed and is operating as intended;

3. The Phosphogypsum Stack System has a twenty (20)-year history after the date of closure of no unresolved violations of water quality standards or criteria detected in the monitoring system, and no increases over Background water for any monitoring parameters that may be expected to result in violations of water quality standards or criteria; and

4. The Phosphogypsum Stack System has had no detrimental erosion of the cover system.

D. Replacement of monitoring devices. If a monitoring well or other device required by the monitoring plan is destroyed or fails to operate for any reason, Simplot shall, as soon as possible but no later than seven (7) days after discovery, notify EPA in writing. All inoperative monitoring devices shall be replaced with functioning devices within sixty (60) days or as soon as is practicable to accommodate weather and equipment availability, of the discovery of the malfunctioning devices unless Simplot is notified otherwise in writing by EPA.

E. Certification of Long-Term Care Completion. A certification of Long-Term Care completion signed, dated and sealed by a Third-Party Engineer, shall be provided by Simplot to EPA upon completion of Long-Term Care.

VII. Closure of Unlined Systems in Phosphogypsum Stacks/ Phosphogypsum Stack Systems

A. No Phosphogypsum or Process Wastewater shall be placed in an unlined Phosphogypsum Stack System after five (5) years of the Effective Date. For purposes of this Section VII, "unlined" means that the Phosphogypsum Stack System was constructed without an installed Liner meeting those standards outlined in Appendix 1.B, Section VI (Construction Requirements for New Phosphogypsum Stacks, Lateral Expansions of Existing Phosphogypsum Stack Systems or Components), except a Liner system or an alternative Liner previously approved by EPA and memorialized in Paragraph 25 of the Consent Decree and Appendix 7 (Alternative Liner Requirements).

APPENDIX 1.D - CRITICAL CONDITIONS AND TEMPORARY MEASURES

I. Requirements for Perimeter Dikes

(1) If a critical condition is confirmed, then EPA shall be notified immediately and the defective area of any Perimeter Dike shall be inspected daily in accordance with Section VIII of Appendix 1.B, until corrective maintenance has cured such defect. A written report of the condition and the actions taken or to be taken for its correction shall be made to the EPA within seven (7) days from the time existence of the critical condition is confirmed.

(2) Any of the following items shall be considered as indicating a critical condition that requires immediate investigation and may require emergency maintenance action:

(a) Concentrated seepage on the downstream slope, at the slope Toe, or downstream from the slope Toe (e.g., a gypsum boil, soil cone, spring, or delta);

(b) Evidence of slope instability including sloughing, bulging or heaving of the downstream slope, or subsidence of any Perimeter Dike slope or crest;

(c) Structurally significant cracking of surface on crest or either face of the Perimeter Dike slope;

(d) General or concentrated seepage in the vicinity of or around any conduit through the Perimeter Dike; or

(e) Observed or suspected damage to the Liner system where there is a release or the potential for a release from the Liner system.

II. Temporary Measures for Use of Design Freeboard to Prevent Release

(1) Temporary Use of the Freeboard

(a) Temporary use of the Freeboard of a Perimeter Dike or a Gypsum Dike is authorized when the water level is at the design Freeboard and when such use is necessary to prevent the release of untreated Process Wastewater. Such use of the Freeboard shall only be allowed when a Third-Party Engineer has approved such use; and

(b) When documentation demonstrating the continued safety and stability of the Dike is submitted to EPA. Such documentation shall include a listing of any operational limitations or constraints recommended by the Third-Party Engineer as set forth in this Section together with confirmation that

Simplot will comply with such recommendations. The Third-Party Engineer shall base recommendations on:

(i) An inspection of the Phosphogypsum Stack System;

(ii) Dike design and construction information;

(iii) Results of seepage and stability analyses (including monitoring of seepage pressures within the Dike if such monitoring is deemed necessary); and

(iv) Wind Surge and Wave Height and Run-up analyses.

(c) The report by the Third-Party Engineer shall specify conditions under which such use may be undertaken so as not to jeopardize the integrity of the Dike, such as:

(i) Acceptable wind speeds in forecast;

(ii) Increased inspection frequencies; and

(iii) Weekly monitoring of piezometric levels within the mass of the Dike, if and as needed.

(d) The Third-Party Engineer shall evaluate the Phosphogypsum Stack System each time use of the design Freeboard is proposed by Simplot. The EPA shall be informed of the proposed use and the engineer's recommendations prior to or within 24 hours of each such occurrence.

(2) If the Perimeter Dike of the Phosphogypsum Stack System is an above-grade Dike, then the Phosphogypsum Stack System may incorporate an emergency spillway to allow for the controlled release of Process Wastewater during emergencies and to avoid overtopping of the Perimeter Dike. The spillway shall be located so as to minimize the environmental impact of any release to the extent practicable. This provision shall not be deemed to authorize a discharge from the spillway and shall not be construed to limit EPA's exercise of enforcement discretion in the event that such discharge causes or contributes to a violation of applicable federal and/or state regulations.

III. Requirements for Actively Operated Phosphogypsum Stack Systems

(1) When a critical condition is suspected during any inspection, the inspector shall ensure that a competent technical representative of Simplot is made aware of the condition immediately. If the existence of the critical condition is confirmed, then EPA shall be notified immediately. A written report of the condition and the

actions proposed for its correction shall be made to EPA within seven (7) days from the time existence of the critical condition is confirmed.

(2) Any of the following items shall be considered as indicating a critical condition that requires immediate investigation and may require emergency maintenance action:

(a) Concentrated seepage (e.g., springs or boils) on the face of a Phosphogypsum Stack slope, at the slope Toe, or beyond the slope Toe with active signs of Piping at the point of seepage (e.g., a gypsum or soil cone or delta at the point of seepage);

(b) Evidence of slope instability including sloughing, bulging or heaving of the face of the Phosphogypsum Stack or the slope Toe;

(c) Continued and increasing lateral movement or subsidence of the slope or crest of the Phosphogypsum Stack;

(d) Formation of new non-shrinkage cracks or enlargement of wide cracks in the surface of the slope or crest of the Phosphogypsum Stack, excluding locations of newly constructed features that have not dried and/or received final grading and compaction;

(e) Observed or suspected damage to the Liner system where there is a release or the potential for a release from the Liner system;

(f) Drains discharging turbid water;

(g) Concentrated seepage (i.e., springs or boils) in the vicinity of a decant pipe.

IV. Emergency Diversion Impoundment (EDI)

(1) Simplot may temporarily use an approved EDI in accordance with applicable state authorization to receive and store discharges of process water from the Phosphogypsum Stack System to avoid safety-related problems and/or to avoid or reduce the unpermitted discharge of process water from the Phosphogypsum Stack System to Surface Waters of the State.

(2) Simplot shall provide to EPA a list of previously designated EDIs (as reflected in applicable permits or water management plans) prior to the Effective Date of the Consent Decree. Any additional EDIs that Simplot wishes to designate after the Effective Date of the Consent Decree must be authorized by the State of Wyoming prior to use.

(3) Simplot shall transport process water to/from the EDI through an emergency spillway or by pumping where necessary.

(4) Following any emergency discharge into an EDI, and within 60 days after such discharge is initiated, Simplot shall submit a detailed remedial plan to EPA for approval. After submission of the plan, Simplot will initiate all steps necessary in accordance with the plan to remove the discharge from the EDI and remediate the area, if necessary, to return that impoundment to its prior use.

Appendix 1.E - Phosphogypsum Stack System Permanent Closure Application

PART I – INSTRUCTIONS

Phosphogypsum Stack Systems must be closed pursuant to the Consent Decree entered in the United States of America v._____(Court Name, Civil Action Number: ______), Appendix 1.B and 1.C and in accordance with conditions set forth in the Consent Decree. The applicant shall complete Part II and submit this form, certified by the applicant and its Third-Party Engineer. This form should be typed or printed. If additional space is needed, separate, properly identified sheets of paper may be attached. All blanks shall be filled or modified N/A (not applicable).

In addition to the information listed on this form and otherwise required by the Consent Decree, including Appendix 1.B and 1.C, the applicant shall submit all information necessary to evaluate the proposed closure plan to ensure the Phosphogypsum Stack System will pose no significant threat to public health or the environment. A minimum of four copies of this application (preferably in a large binder) shall be submitted to the EPA. Please complete applicable Sections of the application.

PART II - GENERAL INFORMATION

(1) Application for permanent closure:
☐ Phosphogypsum Stack ☐ Collection ponds or surge ponds ☐ Other

(2) Facility name: ______________________________

(3) Facility RCRA EPA ID No.: ______________________________

(4) Facility location (main entrance): ______________________________

(5) Location: Latitude__________________ Longitude______________________

Section_Township___Range______UTMs: Zone______km E_km N

(6) Applicant Name (Operating Authority): ______________________________

Street Address & P. O. Box: ______________________________

City: ____________________ County: ______________________ Zip: _____________

Contact Person-Name ______________________________ Phone: _______________

Email: ____

(7) Authorized Agent/Consultant Name: ______________________

Street Address & P. O. Box: ______________________

City: ____________ County: ____________ Zip: ________

Contact Person-Name ______________ Phone: ________

Email: ______________________

(8) Land Owner
(if different from applicant): ______________________

Address of Landowner:
Street & P. O. Box: ______________________

City: ____________ County: ____________ Zip: ________

PART III - CLOSURE GENERAL REQUIREMENTS

APPLICATIONS AND SUPPORTING INFORMATION SHALL INCLUDE THE FOLLOWING:

(1) Four copies of the completed application form, all supporting data, and reports;
(2) A letter of transmittal to the EPA;
(3) A table of contents listing the main section of the application;
(4) Third-Party Engineer certification;
(5) Third-Party Engineer's letter of appointment if applicable;
(6) Closure Plan, Consent Decree Appendix 1.C;
(7) Copy of any lease agreement, transfer of property agreement with right-of-entry for Long-Term Care, or any other agreement between operator and property owner by which the closure and Long-Term Care of the Facility may be affected.

PART IV - CLOSURE PLAN REQUIREMENTS

The following information items must be included in the application or an explanation given if they are not applicable. These are general references. Please see Appendix 1.C for the complete requirements of each section.

(1) General Information Report:
- (a) Identification of the Phosphogypsum Stack System
- (b) Name, address, and phone number of primary contact person
- (c) Name of person(s) or consultants preparing closure plan
- (d) Present property owner(s) and operator
- (e) Locations of main entrance or operator's office of the Phosphogypsum Stack System by: township, range, section and latitude and longitude
- (f) Total acreage of Phosphogypsum Stack System and total acreage of Facility property
- (g) Legal description of property on which the Phosphogypsum Stack system is located
- (h) History of Phosphogypsum Stack System construction and operations

(2) Area Information Report:
- (a) Topography

	Completeness Check	Binder Location
(1) General Information Report	☐	
(a) Identification of the Phosphogypsum Stack System	☐	
(b) Name, address, and phone number of primary contact person	☐	
(c) Name of person(s) or consultants preparing closure plan	☐	
(d) Present property owner(s) and operator	☐	
(e) Locations of main entrance or operators office of the Phosphogypsum Stack System by: township, range, section and latitude and longitude	☐	
(f) Total acreage of Phosphogypsum Stack System and total acreage of Facility property	☐	

	Completeness Check	Binder Location
(g) Legal description of property on which the Phosphogypsum Stack system is located	☐	
(h) History of Phosphogypsum Stack System construction and operations	☐	
(2) Area Information Report	☐	
(a) Topography	☐	
(b) Hydrology	☐	
(c) Geology	☐	
(d) Hydrogeology	☐	
(e) Ground and Surface Water quality	☐	
(f) Land use information	☐	
(3) Groundwater monitoring plan containing site specific information (Appendix 1.A)	☐	
(4) Assessment of the effectiveness of existing Phosphogypsum Stack System design and operation	☐	
(a) Effectiveness and results of Groundwater investigation	☐	
(b) Effects of Surface Water runoff, drainage pattern and existing storm water control	☐	

	Completeness Check	Binder Location
(5) Performance Standards	☐	
(a) Approach used for:	☐	
1. Controlling, minimizing or eliminating the post closure escape of Phosphogypsum, Process Wastewater, Leachate, and contaminated runoff to Groundwater and Surface Waters	☐	
2. Minimizing Leachate generation	☐	
3. Detecting, collecting, and removing Leachate and Process Wastewater efficiently from the Phosphogypsum Stack System and promoting drainage of Process Wastewater from the Phosphogypsum Stack	☐	
4. Minimizing the need for further maintenance	☐	
(b) Discussion of approach used to ensure that the Final Cover system is designed to protect human health and the environment:	☐	
1. Promoting drainage off the Phosphogypsum Stack	☐	
2. Minimizing ponding	☐	
3. Minimizing erosion	☐	
4. Minimizing infiltration into the Phosphogypsum Stack	☐	
5. Functioning with little or no maintenance	☐	
(c) Closure of ponds and drainage conveyances storing Process Wastewater	☐	

	Completeness Check	Binder Location
(6) Closure design plan	☐	
(a) Phasing of site closure	☐	
(b) Existing topography and proposed final grades	☐	
(c) Final Cover installation plans	☐	
(d) Type of Leachate control system proposed	☐	
(e) Compliance with Groundwater protection requirements of the Wyoming DEQ	☐	
(f) Proposed method of stormwater control	☐	
(g) Proposed method of access control	☐	
(h) Proposed final use of Phosphogypsum Stack System property	☐	
(7) Closure construction quality assurance plan	☐	
(a) Listing of personnel involved in closure construction and quality assurance activities	☐	
(b) Scope of work	☐	
(c) Outline of construction activities	☐	
(d) Quality assurance methods and procedures	☐	
(e) Test results	☐	
(f) Record drawings	☐	

	Completeness Check	Binder Location
(8) Closure Operation Plan	☐	
(a) Describe actions which will be taken to close the Phosphogypsum Stack System	☐	
(b) Time schedule for completion of closure and long term care	☐	
(c) Equipment and personnel needs to complete closure	☐	
(d) Appropriate references to design closure plan	☐	
(e) Proposed use of the system for water storage or water management	☐	

(3) Engineer certification

PART V - CERTIFICATION BY APPLICANT AND THIRD-PARTY ENGINEER

(1) Applicant

The undersigned applicant or authorized representative[1] of_______________ is aware that statements made in this form and the attached information are an application for closure approval from the EPA and certifies that the information in this application is true, correct and complete to the best of his knowledge and belief.

Signature of Applicant or Authorized Representative

_________________ By ________________________________

Date *Name* ________________________________

Title ________________________________

(2) Professional Engineer registered in _______________ or Public Officer as required in [State code].

This is to certify that the engineering features of this Facility's Permanent Phosphogypsum Stack System Closure Plan have been designed/examined by me

[1] Attach letter of authorization if representative is not the owner or a corporate officer.

and found to conform to engineering principles applicable to such facilities. In my professional judgment, this Facility's Permanent Phosphogypsum Stack System Closure Plan, when properly executed, will comply with the requirements of Appendix 1.B and 1.C of the Consent Decree (Civil Action No:.______________). It is agreed that the undersigned will provide the applicant with a set of instructions of proper maintenance and closure of the Facility.

____________________ By ____

Date *Name* ________________________________

Title ________________________________

Mailing Address ____

City: ___________________ County: _____________________ Zip: ____________

Telephone Number
(including area code): ____

State Registration Number: ____

(Please affix seal)

Appendix 2

Financial Assurance

APPENDIX 2: FINANCIAL ASSURANCE

This Appendix sets forth the obligations of Defendants J.R. Simplot Company and Simplot Phosphates LLC (Simplot) to secure and maintain Financial Assurance, as required under Paragraph 26 of the Consent Decree, including schedules and notice requirements. Submittals requiring EPA approval shall be submitted pursuant to Section V (Compliance Requirements), Paragraphs 29 - 33, and Section XIV (Notices) of the Consent Decree. An EPA approval or determination shall be subject to dispute resolution pursuant to Section X (Dispute Resolution) of the Consent Decree, including judicial review, unless this Appendix specifies otherwise. The standard of review regarding any EPA approval or determination under this Appendix (including requirements incorporated by reference) shall be governed by Paragraph 71(a) of the Consent Decree. If, in situations where judicial review is not precluded by this Appendix, Simplot seeks but does not prevail on judicial review of such EPA approval or determination, Simplot shall pay all costs incurred by the United States in connection with such judicial review, including attorneys' fees.

Any modification of a time period specified by this Appendix or its Attachments is a non-material modification for purposes of Section XVII (Modification) of the Consent Decree and may be modified by written agreement of the Parties.

Under this Appendix, when required to provide an originally signed certification by the Chief Financial Officer ("CFO"), unless otherwise specified, another designated corporate officer may provide the signed certification if authority to sign has been assigned or delegated in accordance with corporate procedures and bylaws ("duly designated corporate officer"). Simplot shall use the form provided in Attachment A ("CFO Certification") of this Appendix for this certification.

I. Definitions

Except as otherwise provided in this Appendix, definitions for the terms presented herein shall be incorporated from 40 C.F.R. § 264.141. Whenever the terms set forth below are used in this Appendix, the definitions set forth below shall apply. However, the Parties are not bound by these definitions in connection with any matter not relating to Financial Assurance under this Consent Decree.

"Anniversary Date" shall mean the annual anniversary of the date that Financial Assurance is provided unless otherwise stated in this Appendix.

"Closure Plan" shall mean the plan (including, as applicable, the Initial Phosphogypsum Stack System Closure Plan or Permanent Phosphogypsum Stack System Closure Plan) prepared for Stack Closure and Long-Term Care, and associated water treatment activities, in accordance with the requirements of Appendix 1.C of the Consent Decree.

"Cost Estimate" shall mean the estimate of the costs for Stack Closure and Long-Term Care at the Facility as set forth in Section II of this Appendix.

"Current Dollars" shall mean U.S. dollars in the year actually received or paid, unadjusted for price changes or inflation.

"Financial Mechanism" shall mean those mechanisms or instruments specified in this Appendix used to secure funding for an obligation under the Consent Decree.

"Long-Term Care" shall have the same meaning as set forth in Appendix 9 for those activities required pursuant to Appendix 1.C and for purposes of Appendix 2 shall: (1) include associated water treatment activities; and (2) be substituted for the term "post closure" in 40 C.F.R. Part 264, Subpart H.

"Related Party" or "Related Parties" shall have the same meaning as set forth in the Statement of Financial Accounting Standards No. 57, Appendix B (Glossary) (Financial Accounting Standards Board - Original Pronouncements, as amended) as that standard may hereafter be modified, which standard currently provides: "Affiliates of the enterprise; entities for which investments in their equity securities would, absent the election of the fair value option under FASB Statement No. 159, *The Fair Value Option for Financial Assets for Financial Assets and Financial Liabilities*, be required to be accounted for by the equity method by the enterprise; trusts for the benefit of employees, such as pension and profit-sharing trusts that are managed by or under the trusteeship of management; principal owners of the enterprise; its management; members of the immediate families of principal owners of the enterprise and its management; and other parties with which the enterprise may deal if one party controls or can significantly influence the management or operating policies of the other to an extent that one of the transacting parties might be prevented from fully pursuing its own separate interests. Another party also is a Related Party if it can significantly influence the management or operating policies of the transacting parties or if it has an ownership interest in one of the transacting parties and can significantly influence the other to an extent that one or more of the transacting parties might be prevented from fully pursuing its own separate interests."

"Stack Closure" or "Stack System Closure" shall have the same meaning as set out in Appendix 9, for those activities required pursuant to Appendix 1.C and for purposes of Appendix 2 shall: (1) include associated water treatment activities; and (2) substitute for the term "closure" in cited requirements of 40 C.F.R. Part 264, Subpart H.

"Substantial Business Relationship" shall mean the extent of a business relationship necessary under applicable state law to make a guarantee contract issued incident to that relationship valid and enforceable. A "Substantial Business Relationship" must arise from a pattern of recent or ongoing business transactions, in addition to the guarantee itself, such that a currently existing business relationship between the guarantor and the owner or operator is demonstrated to the satisfaction of EPA.

"Third Party" shall mean a party that is not a Related Party nor a party with a Substantial Business Relationship to Simplot.

"Third-Party Mechanism" shall mean a trust fund, surety bond, letter of credit, or insurance as set forth in this Appendix.

"Trust Agreement" shall mean a signed document that establishes a trust fund. A trust fund is a mechanism in which legal title to property (e.g., cash, investment securities) is transferred from Simplot (the "Grantor") to another party (the "Trustee") who will hold and administer the property for the benefit of EPA (the "Beneficiary").

II. Cost Estimate

1. Simplot has provided, and EPA has approved, its Cost Estimate in Appendix 8.

a. The Cost Estimate shall include a detailed written Cost Estimate for Stack Closure and Long-Term Care for the Facility, including but not limited to the cost of cover material, topsoil, seeding, fertilizing, mulching, labor, land surface care, and Groundwater monitoring, collection and analysis and any other costs of compliance with Appendix 1.C. The Cost Estimate shall be calculated based on the point in time when the manner and extent of the operation of the Phosphogypsum Stack System would make the Stack Closure and Long-Term Care the most expensive. The Cost Estimate and all subsequent updates shall be based on what it would cost to hire a Third Party to complete Stack Closure and Long-Term Care in that year, except as provided in Paragraph 1(b), below.

b. Subject to the conditions for access set forth below, Simplot may, if the conditions of this Paragraph 1(b) are met, include in its Cost Estimate a cost for soil from a borrow area at the Facility, based on information provided by Simplot describing the soil borrow areas to be used (e.g., location), in lieu of the cost to obtain soil from a Third Party. In that event, Simplot agrees that, if a takeover of Work occurs pursuant to Section VI of the Consent Decree, the United States (including a receiver designated pursuant to Section VI (Work Takeover) of the Consent Decree, or trustee directing Stack Closure and/or Long-Term Care), in addition to their right to Financial Assurance as set forth in the Consent Decree, shall have the same legal right of access to and use of such soil, and any equipment necessary to access and process such soil, as Simplot would have. Simplot shall confirm with its submittal required under Paragraph 4, below, that the United States continue to have a right to access and use the soil, that the soil available is sufficient for Phosphogypsum Stack System Closure, and that Simplot knows of no reasons as to why the United States, or their representatives, could not have access to and use of the borrow area(s) and soil. If, for any reason, Simplot or EPA determines that such access cannot be had, or that the available soil in the borrow area is insufficient for Phosphogypsum Stack System Closure, then Simplot in its next scheduled update to the Cost Estimate or ninety (90) Days prior to Phosphogypsum Stack System Closure, whichever is later, shall submit to EPA an updated Cost Estimate recalculating the soil cost for that quantity of soil needed but determined not to be available in the designated borrow area either: (i) based on the cost of soil from a substitute borrow area at the Facility; (ii) based on the cost of soil and transportation from a substitute borrow area in the vicinity of the Facility on property owned by Simplot; or (iii) if such substitute borrow area is not available, as a cost of a Third Party buying the soil for Phosphogypsum Stack System Closure, and shall provide any additional or alternative Financial Assurance necessary to cover this cost on the Anniversary Date. Nothing in this Paragraph 1(b) shall be construed as transferring to the United States or their representatives any obligation that Simplot may have under the law, including permit requirements, to properly manage, close and/or remediate the soil borrow areas, or otherwise creating such obligations for the United States and/or their duly designated representatives.

2. The Cost Estimate shall be calculated in Current Dollars.

3. Simplot shall not include in any Cost Estimate any credit for salvage value or a zero cost for handling hazardous waste with potential future value, as set forth in 40 C.F.R. § 264.142(a)(3)&(4).

4. Simplot shall submit a Cost Estimate, together with supporting documentation, to EPA in the following manner:

a. Simplot shall submit the Cost Estimate based on the current costs (i.e., using that year's current prices) for Stack Closure and Long-Term Care in accordance with this Section.

b. Simplot shall submit annually to EPA an updated Cost Estimate reflecting inflationary adjustments, except as set forth in Paragraph 4(d), below. Such adjustment may be made by either method in Paragraph 4(b)(1) or 4(b)(2) below, except as otherwise required in this Appendix:

(1) Recalculating the costs, in Current Dollars (i.e., OSWER Directive No. 9476.00-5, Section 4.4.1); or

(2) Using an inflationary factor derived from the most recent Implicit Price Deflator ("Deflator") for the Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business, in the manner as specified by 40 C.F.R. §§ 264.142(b) and 264.144(b). If the Cost Estimate is due by the end of February, Simplot shall: (i) use the Deflator for the Gross National Product published for Q1, Q2 & Q3 of the prior year, calculate the change in the Deflator between Q1 and Q2, and the change in Deflator between Q2 and Q3, take the average of these values, and add this average to the Q3 Deflator to impute a Q4 Deflator; or (ii) if the Deflator for the Gross National Product has not been published for Q3 of the prior year by February 10 of the following year, Simplot shall calculate the change in the published Deflator between Q1 and Q2, adding this value both to the Deflator for Q2 to impute a Q3 Deflator and to the imputed Q3 Deflator to impute a Q4 Deflator. If Simplot calculates imputed Deflators by using an average of the change in Deflators from prior quarters because the actual Deflator for Q3 or Q4 were not then available, annual inflationary adjustments in subsequent years shall be based on the actual Deflator, as and when published values become available. An example of the inflationary factor calculation is provided in Attachment B of this Appendix.

c. In the event that Simplot requests a release of an amount in excess of the updated Cost Estimate from the Financial Mechanism establishing Financial Assurance under Section III, other than for a reduced updated Cost Estimate pursuant to Paragraph 4(b)(2) above, Simplot shall: (1) provide a supplement to the Closure Plan with Simplot's request for a reduction in the Financial Assurance; and (2) provide a detailed description of the changes and revisions to the Closure Plan and updated Cost Estimate resulting in the decreased updated Cost Estimate.

d. Simplot shall:

(1) Submit every five (5) years an update to the Cost Estimate with supporting documentation and an updated Closure Plan, reflecting cost adjustments (e.g., revised treatment protocols (including chemical treatment quantities), additional studies, treatment costs, material and labor cost increases, new or Lateral Expansion of a Phosphogypsum Stack or Component, etc.) as specified in Paragraph 4(d)(2), below. Simplot shall provide the update and associated documentation five (5) years after the submittal of the Cost Estimate (pursuant to Paragraph 1 of this Appendix). Simplot shall also provide such an update to the Cost Estimate for the Facility: (i) in the event of a re-evaluation of when the manner and extent of the operation of the

Phosphogypsum Stack System makes the Stack Closure and Long-Term Care the most expensive; (ii) with the submittal of the Permanent Phosphogypsum Stack System Closure Plan as specified in Appendix 1.C of the Consent Decree; and (iii) thirty (30) Days prior to a Facility transfer with the information requested pursuant to Paragraph 18 of this Appendix.

(2) An update to the Cost Estimate submitted under this Paragraph 4(d) shall be adjusted by recalculating the costs, in Current Dollars, as set forth in Paragraph 4(b)(1), above.

(a) In the event a specific cost needed to prepare the Cost Estimate has been updated pursuant to Paragraph 4(d)(1), above, within one (1) year, Simplot may adjust that specific cost pursuant to Paragraph 4(b)(2), above.

(b) In the event a specific cost needed to prepare the Cost Estimate has not been updated pursuant to Paragraph 4(d)(1), above, within one (1) year and if not otherwise available, then Simplot may utilize the most recent update of that specific cost, and adjust that prior cost pursuant to Paragraph 4(b)(2), above, provided that Simplot identifies the specific cost and includes a brief explanation for adjusting the cost pursuant to Paragraph 4(b)(2), above.

e. Simplot shall submit an update to the Cost Estimate, in accordance with this Paragraph, sixty (60) Days prior to the Anniversary Date of the establishment of the Financial Mechanism, except if otherwise provided herein. If more than one Financial Mechanism is being used to establish Financial Assurance, the update to the Cost Estimate shall be submitted sixty (60) Days prior to the earliest Anniversary Date, for a given calendar year, of a Financial Mechanism.

f. Simplot shall submit with all Cost Estimates Attachments B and C of this Appendix.

5. Notwithstanding the provisions of Section XI (Information Collection and Retention) of the Consent Decree, Simplot shall maintain, or have electronic access to (such that upon request the information can be readily downloaded and printed), at the Facility for the duration of this Consent Decree the Initial Closure Plan (Appendix 8) and the most recent update to the Cost Estimate.

III. <u>Financial Assurance for Stack Closure and Long-Term Care</u>

6. Within thirty (30) Days of the Effective Date or within ten (10) Days of EPA's approval of Simplot's initially submitted Cost Estimate, whichever is later, and on the first Anniversary Date and annually thereafter, Simplot's CFO shall provide to EPA an originally signed CFO Certification, together with supporting documentation, confirming that it has established Financial Assurance for Stack Closure and Long-Term Care, in an amount no less than the Cost Estimate and pursuant to the requirements of Section III of this Appendix.

7. Once Simplot establishes Section III Financial Assurance for Stack Closure and Long-Term Care, it shall maintain such Financial Assurance pursuant to the requirements of Section III.

8. Financial Assurance for Stack Closure and Long-Term Care under this Section III must comply with the requirements of 40 C.F.R. §§ 264.143(a)-(e) and (g)-(i), 264.145(a)-(e) and (g)-(i), and 264.148, except as clarified and modified in this Section III.

9. Simplot shall use the Cost Estimate generated pursuant to Section II (Cost Estimate), above, in lieu of the cost estimates required pursuant to 40 C.F.R. §§ 264.142 and 264.144 unless otherwise directed in this Appendix, to establish Financial Assurance under this Section III. Simplot shall establish Section III Financial Assurance in an amount at least equal to the Cost Estimate in accordance with the deadlines specified in Paragraph 6.

10. Simplot shall choose from the Financial Mechanisms specified in 40 C.F.R. §§ 264.143(a)-(e) and 264.145(a)-(e) to establish Section III Financial Assurance, provided that, if Simplot is using Third-Party Mechanisms (a trust fund, letter of credit, surety bond, or insurance), the Trustee of any trust fund, or the provider of any letter of credit, surety bond, or insurance shall not be a Related Party to Simplot. Simplot shall word the Financial Mechanism as specified in Attachment D of this Appendix.

a. For a trust fund, Simplot shall comply with 40 C.F.R. §§ 264.143(a) and 264.145(a), except as modified below:

(1) In lieu of complying with 40 C.F.R. §§ 264.143(a)(3)-(4) and 264.145(a)(3)-(4), and if Simplot is providing only a fully funded trust fund to establish Financial Assurance under this Section, then Simplot shall either:

(a) Fully fund the trust within thirty (30) Days of the Effective Date or within ten (10) Days of EPA's approval of Simplot's Cost Estimate, whichever is later; or

(b) Submit to EPA for approval within five (5) Days of the Effective Date or within five (5) Days of Simplot's Cost Estimate submittal, whichever is later: (i) an originally signed CFO Certification, with supporting documentation, explaining in detail Simplot's inability to immediately fund the trust fund, and (ii) a proposal for a pay-in period of no longer than three (3) years, with at least fifty percent (50%) of the Stack Closure and Long-Term Care Cost Estimate to be funded in the first year. Any subsequent request for an extension to an approved pay-in period shall be made at least 180 Days before the close of an approved pay-in period, and shall include an originally signed CFO Certification explaining in detail why a longer pay-in period is needed, together with supporting documentation. Such approvals by EPA shall be in its unreviewable discretion.

(2) In lieu of 40 C.F.R. § 264.151(a), Simplot shall use the exact wording as specified in Form 1, Attachment D of this Appendix, for the Trust Agreement. Simplot may enter into an addendum to the Trust Agreement ("Addendum") provided that: (a) the Addendum supplements and does not contain terms that conflict, supersede, revise or alter the terms of the Trust Agreement (or the requirements of Appendix 2); and (b) the Addendum is approved by EPA in advance, such approval is within EPA's unreviewable discretion. A Trust Agreement must be accompanied by a formal certification of acknowledgement (see example provided with Trust Agreement, Form 1, Attachment D of this Appendix).

(3) Simplot shall update any associated schedules or exhibits of the Trust Agreement, as appropriate, within sixty (60) Days after a change in the amount of the Cost Estimate.

b. For a surety bond guaranteeing payment or performance, Simplot shall comply with 40 C.F.R. §§ 264.143(b)&(c) and 264.145(b)&(c), except that:

(1) In addition to the requirements of 40 C.F.R. §§ 264.143(b)(1)&(c)(1) and 264.145(b)(1)&(c)(1), Simplot shall provide an originally signed certification from either the Simplot (CFO Certification) or an officer of A.M. Best or an NRSRO, documenting that the surety has at least a "secured" financial strength rating of "A" by A.M. Best or an equivalent rating by the NRSRO.

(2) In lieu of 40 C.F.R. §§ 264.143(b)(4)(ii)&(c)(5) and 264.145(b)(4)(ii)&(c)(5), upon EPA issuance of a Work Takeover Notice pursuant to Section VI (Work Takeover) of the Consent Decree stating that Simplot has failed to perform Stack Closure and/or Long-Term Care, if Simplot fails within thirty (30) Days of the Work Takeover Notice to remedy to EPA's satisfaction the circumstances giving rise to EPA's issuance of such Work Takeover Notice (Paragraph 37 of the Consent Decree), the surety will become liable on the bond obligations and EPA may require the surety to meet its obligations pursuant to the terms of the surety bond and Section VI (Work Takeover) of the Consent Decree. A dispute raised by Simplot shall be subject to the dispute resolution provisions set forth in Sections VI (Work Takeover) and X (Dispute Resolution) of the Consent Decree.

(3) In lieu of 40 C.F.R. §§ 264.143(b)(2), 264.145(b)(2) and 264.151(b), Simplot shall use the exact wording as specified in Form 2, Attachment D of this Appendix, for the wording of the surety bond guaranteeing payment. In lieu of 40 C.F.R. §§ 264.143(c)(2), 264.145(c)(2) and 264.151(c), Simplot shall use the exact wording as specified in Form 3, Attachment D of this Appendix, for the wording of the surety bond guaranteeing performance.

(4) In the event that Simplot must provide alternate Financial Assurance subject to EPA approval pursuant to 40 C.F.R. §§ 264.143(b)(4)(iii)&(c)(4)(ii) and 264.145(b)(4)(iii)&(c)(4)(ii) or the surety becomes liable under the terms of the bond upon notification by EPA, due to cancellation (40 C.F.R. §§ 264.143(b)(8)&(c)(8) and 264.145(b)(8)&(c)(9)), a disapproval or notice by EPA shall be subject to dispute resolution in Section X (Dispute Resolution) of the Consent Decree, but not judicial review. Any dispute raised by Simplot shall not prohibit EPA from requiring the surety to place the guaranteed funds into a standby trust during the pendency of the dispute.

c. For a letter of credit, Simplot shall comply with 40 C.F.R. §§ 264.143(d) and 264.145(d), except as modified below:

(1) In addition to the requirements of 40 C.F.R. §§ 264.143(d)(1) and 264.145(d)(1), as applicable, Simplot shall provide an originally signed CFO Certification documenting that the provider of the letter of credit is a federally insured financial institution.

(2) In lieu of 40 C.F.R. §§ 264.143(d)(8) and 264.145(d)(9), upon EPA issuance of a Work Takeover Notice pursuant to Section VI (Work Takeover) of the Consent Decree stating that Simplot has failed to perform Stack Closure and/or Long-Term Care, if Simplot fails within thirty (30) Days of the Work Takeover Notice to remedy to EPA's satisfaction the circumstances giving rise to EPA's issuance of such Work Takeover Notice (Paragraph 37 of the Consent Decree), EPA may draw on the letter of credit pursuant to the terms of the letter of and Section VI (Work Takeover) of the Consent Decree. A dispute raised by Simplot shall be subject to the dispute resolution provisions set forth in Sections VI (Work Takeover) and X (Dispute Resolution) of the Consent Decree.

(3) In lieu of 40 C.F.R. §§ 264.143(d)(2), 264.145(d)(2) and 40 C.F.R. § 264.151(d), Simplot shall use the exact wording as specified in Form 4, Attachment D of this Appendix, for the letter of credit and the associated cover letter accompanying the letter of credit.

(4) In the event that Simplot must provide alternate Financial Assurance subject to EPA approval or EPA draws on the letter of credit pursuant to 40 C.F.R. §§ 264.143(d)(9) and 264.145(d)(10), due to cancellation (40 C.F.R. §§ 264.143(d)(5) and 264.145(d)(5)), a disapproval or drawing on the letter of credit by EPA shall be subject to dispute resolution to Section X (Dispute Resolution) of the Consent Decree, but not judicial review. Any dispute

raised by Simplot shall not prohibit EPA from drawing on the letter of credit during the pendency of the dispute.

d. For insurance, Simplot shall comply with 40 C.F.R. §§ 264.143(e) and 264.145(e), and shall provide an originally signed certification from either the Simplot (CFO Certification) or an officer of A.M. Best or an NRSRO, documenting that the insurer has at least a "secured" financial strength rating of "A" by A.M. Best or an equivalent rating by the NRSRO. Simplot also shall:

(1) Comply with 40 C.F.R. §§ 264.143(e)(8) and 264.145(e)(8), except that in lieu of the conditions set forth in 40 C.F.R. §§ 264.143(e)(8)(i)-(v) and 264.145(e)(8)(i)-(v) that specify when a policy will remain in full force and effect notwithstanding a failure to pay the premium, the following conditions are substituted: (a) EPA determines that the Facility has been abandoned; (b) the Work required under this Consent Decree is undertaken by EPA; (c) Stack Closure, partial Phosphogypsum Stack System Closure, or Long-Term Care is ordered by EPA or by a U.S. District Court or other court of competent jurisdiction; (d) Simplot is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or (e) the premium due is paid.

(2) Submit annually a certificate of insurance and a complete copy of the insurance policy, including amendments and endorsements.

(3) In lieu of 40 C.F.R. §§ 264.143(e)(2), 264.145(e)(2) and 264.151(e), Simplot shall use the exact wording as specified in Form 5, Attachment D of this Appendix, for the wording of the Certificate of Insurance.

(4) Notify EPA if it has cause to believe that it will not be able to make a premium payment.

(5) Ensure the assignment requirements of 40 C.F.R. §§ 264.143(e)(7) and 264.145(e)(7) are incorporated into the insurance policy exactly as written, with no additional qualifying conditions.

(6) Ensure that the policy does not allow or offer coverage for liabilities other than those contemplated by the Consent Decree.

11. If Simplot seeks to provide:

a. More than one Third-Party Mechanism to demonstrate Financial Assurance for Stack Closure and Long-Term Care, pursuant to 40 C.F.R. §§ 264.143(g) and 264.145(g), Simplot shall submit to EPA an originally signed CFO Certification verifying that the Third-Party Mechanisms do not incorporate terms subrogating one Financial Mechanism to another, i.e., designating a prioritization for the release of the funds or the payment of a claim. EPA, if the need arises, will determine in its unreviewable discretion the priority for the release of funds or payment of a claim.

b. A Financial Mechanism establishing Financial Assurance at more than one facility pursuant to 40 C.F.R. §§ 264.143(h) and 264.145(h), Simplot:

(1) Shall not provide a single trust fund or insurance policy to cover the multiple facilities in different States, but shall provide each affected State with its own distinct trust fund or insurance policy;

(2) May use the same letter of credit or surety bond for multiple facilities provided that the following conditions are met: (a) the facilities' EPA Identification Numbers, names, addresses, and the Stack Closure and Long-Term Care Cost Estimate(s) associated with each particular facility are clearly specified in the Financial Mechanism; and (b) the Financial

Mechanism clearly states that there can be a release of funds for a specified facility without requiring the entire obligation covered by the Financial Mechanism to be placed in the stand-by trust(s); and

(3) Shall not release funds designated for one or more facilities in another State except upon written agreement of EPA, Simplot, and the affected State(s).

IV. Financial Assurance for Third-party Liability

12. Within thirty (30) Days of the Effective Date, and on the first Anniversary Date and annually thereafter, Simplot's CFO shall provide to EPA a Financial Mechanism for third-party liability along with an originally signed CFO Certification, together with supporting documentation, confirming that it has established Financial Assurance to compensate a third-party for bodily injury or property damage that might result from sudden accidental or non-sudden accidental occurrences associated with the operation of the Phosphogypsum Stack System, Stack Closure or Long-Term Care at the Facility ("Financial Assurance for Third-Party Liability"). The Financial Assurance for Third-party Liability shall comply with 40 C.F.R. § 264.147(a)-(e), (h)-(k), except as provided in Paragraph 13 below, and Simplot shall maintain such Financial Assurance during operation of the Phosphogypsum Stack System and during Phosphogypsum Stack System Closure. If Simplot wishes to propose an adjustment to the amount of Financial Assurance pursuant to 40 C.F.R. § 264.147(c), Simplot shall submit to EPA for approval an originally signed CFO Certification explaining the basis for the proposed adjustment, together with supporting documentation demonstrating than an adjustment is appropriate under 40 C.F.R. § 264.147(c). Until such time as EPA approves the adjusted Financial Assurance in writing, Simplot shall provide Financial Assurance for Third-Party Liability as otherwise required herein. Nothing in this Paragraph shall be construed to waive or limit EPA's right, pursuant to 40 C.F.R. § 264.147(d), to adjust the level of Financial Assurance required in 40 C.F.R. § 264.147(a)&(b). EPA's determination of whether or not to approve Simplot's request under 40 C.F.R. § 264.147(c) is subject to dispute resolution under Section X (Dispute Resolution) of the Consent Decree, but not judicial review.

13. Simplot's Financial Assurance for Third-Party Liability shall comply with 40 C.F.R. §§ 264.147(a)-(b) & (h)-(j) and as modified by this Paragraph. If Simplot is using a trust fund, letter of credit, or surety bond, the Trustee of any trust fund, or the provider of any letter of credit or surety bond shall not be a Related Party to Simplot. Simplot shall word the Financial Mechanism as specified in Attachment D, Form 6 of this Appendix.

a. For a surety bond or for insurance, Simplot shall demonstrate that the surety and the insurer have at least a "secured" financial strength rating of "A" by A.M. Best or an equivalent rating by an NRSRO. Such demonstration shall be in the form of an originally signed certification from either Simplot (CFO Certification) or an officer of A.M. Best or the NRSRO.

b. For a letter of credit, Simplot shall ensure that the provider of the letter of credit is a federally insured financial institution.

V. Information Gathering

14. For purposes of Appendix 2, information gathering shall be governed by Paragraphs 27 and 73 of the Consent Decree unless otherwise specified in this Appendix.

VI. Temporary Non-Compliance

15. If Simplot determines that it has violated or anticipates violating any requirement of this Appendix, Simplot shall follow the procedures below in Paragraph 15(a) to correct the non-compliances. If, after following the procedures in Paragraph 15(a), there remains non-compliances or anticipated non-compliances, then any dispute raised by Simplot regarding EPA's refusal to approve a plan under this Paragraph shall not prohibit EPA from accessing existing Financial Assurance. If Simplot fails to meet a compliance schedule or the terms of a compliance plan under this Appendix: (i) Simplot shall be deemed without Financial Assurance for purposes of enforcement; and (ii) EPA shall not be precluded from accessing or collecting any existing Financial Assurance.

a. For all non-compliances or anticipated non-compliances of this Appendix, Simplot shall within ten (10) Days of the non-compliance determination submit to EPA, an originally signed CFO Certification together with supporting documentation, explaining in detail the nature of the violation and stating whether or not the non-compliance can be rectified by Simplot within thirty (30) Days. If Simplot does not believe that it can rectify the non-compliance within thirty (30) Days, then within ten (10) Days of its notice Simplot shall submit to EPA for approval a plan and schedule for correcting the violation. If applicable, such a plan shall include additional or alternate Financial Assurance. In the event that alternate or additional Financial Assurance is a component of the plan and schedule, then the Financial Assurance shall be provided as soon as possible, but no later than sixty (60) Days after Simplot's notice of Simplot's non-compliance. Simplot may request additional time to provide the alternate or additional Financial Assurance and such request shall include a detailed explanation and supporting documentation.

b. EPA's determination of whether to approve Simplot's plan and/or schedule for correcting the violation(s) is subject to dispute resolution under Section X (Dispute Resolution) of the Consent Decree, but not judicial review. The time frames applicable to both Simplot and the United States for notices and submissions under Section X (Dispute Resolution) of this Consent Decree shall be reduced by half for any plan requiring alternate or additional Financial Assurance.

16. Simplot shall not be subject to stipulated penalties pursuant to Section VIII (Stipulated Penalties) of the Consent Decree for temporary non-compliance with this Appendix provided that: (a) Simplot complies with the notice and submittal requirements of Paragraph 15, above; (b) EPA approves the plan and schedule for correcting the violation, including any additional or alternative Financial Assurance; (c) Simplot within ten (10) Days of EPA's approval commences the correction of the violation in accordance with the approved schedule, including if applicable the establishment of any additional or an alternate form of Financial Assurance; and (d) EPA determines that Simplot's violation is not due to Simplot's lack of diligence or good faith (the burden of proving this shall rest with Simplot).

VII. Business Transactions

17. No transfer of ownership or operation of a Facility shall relieve Simplot of its Financial Assurance obligations under this Consent Decree, except as provided by Section IX (Force Majeure) and Section II (Applicability) of the Consent Decree.

18. At least thirty (30) Days prior to any transfer, Simplot shall submit to EPA information explaining the proposed transfer in detail and stating whether Simplot requests the transfer of its Financial Assurance responsibilities to the transferee pursuant to Section II (Applicability) of the Consent Decree and Paragraph 19(b), below.

19. In the event of a transfer of a Facility's ownership or operation:

a. If Simplot is to retain its Financial Assurance obligations upon the transfer of the Facility, Simplot, based on the Cost Estimate in Current Dollars, shall establish and fund a trust fund, or obtain a surety bond or letter of credit in accordance with this Appendix. Any existing trust fund established pursuant to this Appendix shall remain in place. Simplot shall provide EPA the appropriate documentation evidencing the trust fund, surety bond, or letter of credit by the date of the Facility transfer. If using a trust fund, the portion of funds vested in the trust fund that are not required to meet annual withdrawals shall be invested in U.S. Treasury Bills, or market-based notes and bills that achieve an investment goal or preservation of principle and guarantee an inflation-adjusted rate of return no less than the 30-Year Treasury Constant Maturity Rate average for the previous twelve (12) months from the date of the annual Cost Estimate. If Simplot wishes to propose alternate Financial Mechanism(s) in lieu of the trust fund, surety bond, or letter of credit, Simplot at least thirty (30) Days prior to the transfer shall submit an originally signed CFO Certification from Simplot's CFO, together with supporting documentation, explaining the compelling reasons why the proposed alternate Financial Mechanism is being requested and is an equivalent substitute for the trust fund, surety bond, or letter of credit. Upon EPA's approval, which shall be subject to dispute resolution pursuant to Section X (Dispute Resolution) of the Consent Decree but shall not be subject to judicial review, Simplot shall establish the approved Financial Assurance. If by the date of the transfer, EPA does not approve such a request or Simplot has not put in place the approved Financial Assurance, then Simplot shall fully fund the trust fund or obtain a surety bond or letter of credit, as described above.

b. If the transferee agrees to assume Simplot's Financial Assurance obligations, Simplot shall submit to EPA for approval an originally signed certification by the transferee's CFO, together with supporting documentation, explaining in detail its ability to provide Financial Assurance pursuant to the requirements of this Appendix and agreeing to provide the Financial Assurance if approved by EPA pursuant to Section II (Applicability) of the Consent Decree. Simplot shall comply with the requirements of Paragraph 19(a), above, until: (1) EPA has approved the transferee's proposed Financial Assurance; (2) the United States consents to the transfer of obligations pursuant to Section II (Applicability) of the Consent Decree; (3) the transferee has established the approved Financial Assurance; and (4) EPA has given its consent for Simplot to terminate its Financial Assurance.

20. If Simplot is providing Financial Assurance through the use of any Financial Mechanism other than the exclusive use of a fully funded trust fund in Current Dollars, in the event of a

business transaction that results, or Simplot determines will result, in an adverse material change to Simplot's financial or corporate structure that provides Simplot or its successor (or a Guarantor of Simplot or its successor) with insufficient funds to satisfy the carrying costs of its approved Financial Assurance instrument(s), including premium payments, collateral requirements, and/or financial covenants imposed by the instrument provider, for the 365 Days immediately following the business transaction, then Simplot shall provide notice to EPA within fourteen (14) Days of identifying such adverse material change and comply with the requirements for Financial Assurance in Paragraph 19(a), above.

VIII. Reservation of Rights

21. If EPA determines at any time that the Financial Assurance provided by Simplot no longer satisfies the requirements of this Consent Decree, it shall notify Simplot. EPA may base this determination on Simplot's failure to provide notices or documentation required by this Appendix as well as on a substantive evaluation of Simplot's Financial Assurance. Within thirty (30) Days of written notice from EPA that Simplot's Financial Assurance no longer satisfies the requirements of this Consent Decree, Simplot shall submit to EPA for approval revised or alternate Financial Assurance that satisfies the requirements of this Consent Decree. Simplot shall not cancel the existing Financial Assurance until the revised or alternate Financial Assurance has been approved by EPA, and EPA has provided written consent permitting Simplot to cancel the existing Financial Assurance. Failure to timely provide alternative Financial Assurance as required by this Section (or any Paragraph of this Appendix that references this Section) is not subject to the provisions of Section VI (Temporary Non-Compliance) of this Appendix. EPA's determination shall be subject to dispute resolution pursuant to Section X (Dispute Resolution) of this Consent Decree, but not judicial review, and the time frames for notices and submissions under the dispute resolution process shall be reduced by half (e.g., under Informal Dispute Resolution Simplot shall submit its Notice of Dispute within fifteen (15) Days).

22. Within 60 days after receiving certification from Simplot and a qualified professional engineer that the Long-Term Care period has been completed in accordance with the approved Closure Plan, EPA will notify Simplot that it is no longer required to maintain Financial Assurance for Long-Term Care of the Facility, unless EPA has reason to believe that Long-Term Care has not been completed in accordance with the approved Closure Plan. EPA shall provide Simplot a detailed written statement of any such reason to believe that Long-Term Care has not been in accordance with the approved Closure Plan.

Instructions: The following is the form of the Chief Financial Officer's ("CFO") certification that shall be used when required under Appendix 2 of the Consent Decree. The CFO Certification shall be worded as follows except that instructions in the brackets are to be replaced with the relevant information and the brackets deleted.

Chief Financial Officer Certification

I hereby certify as the Chief Financial Officer [*or insert, as appropriate, "a duly designated corporate officer"*] of [*insert Company name/designation*] under penalty of law, in accordance with the requirements of [*insert the specific Section/Paragraph of Appendix 2*] of the Consent Decree entered by the [*insert the District Court designation and case information*] that [*insert the substance of the certification being made and any additional information that is relevant for the certification*]. Based on my inquiry of persons directly responsible for gathering the information for this certification (and any attached documentation), the information submitted is, to the best of my knowledge and belief, true accurate and complete. I am aware that there are significant penalties for submitting false information, including possible fine and imprisonment for knowing violations.

[*If required under Appendix 2 as part of the CFO Certification.*] I have attached as supporting documentation: [*insert a description of/information on the supporting documentation.*]

Date: ____________________

Signature: ____________________

Print Name: ____________________
Title: ____________________

Company: ____________________
Address: ____________________
____
Telephone Number: ____________________

E-mail: ____________________

STACK CLOSURE AND LONG-TERM CARE COST ESTIMATE FOR PHOSPHOGYPSUM STACK SYSTEM[1]

Date: ____________ Date of Review: ______________________________

Reviewer Signature: _______________________________

INSTRUCTIONS:

1. Appendix 8 (Table 3.5) provides the three areas of primary costs associated with the Phosphogypsum Stack System Closure Plan: physical closure cost; Long-Term Care cost; and annual water treatment costs.
2. This form shall be used to provide the information regarding adjustments to the Cost Estimate as directed in Section II of Appendix 2.
3. For annual inflationary adjustments, fill in all sections, below, as appropriate. If using the inflationary factor, fill in Section II.A, below. If recalculating the Cost Estimate in Current Dollars, fill in Section II.B, below.
4. Every fifth year, Simplot shall make an adjustment to the Cost Estimate as directed by Paragraph 4.d. of Section II, Appendix 2 ("Substantive Adjustment").
5. The Attachment B-1 Forms 1-3 and Section II.B, below, shall be completed for the Substantive Adjustment to the Cost Estimate that is to be provided with the submittal of the updated Closure Plan (see Paragraph 4(d)(1), Section II of Appendix 2).
6. This form is to be sent to the appropriate individual(s) identified in Section XIV (Notices) of the Consent Decree.
7. All Cost Estimates entered on this form may be rounded to the nearest hundred thousand dollars.

I. GENERAL INFORMATION

Facility Name: ____ EPA ID #: _________________

Facility Address: ____

Owner/Operator: ____

Mailing Address: ____

____

II. COST ESTIMATE ADJUSTMENT

Please check below the appropriate boxes identifying the type of Cost Estimate adjustment under this Section. In addition, Simplot shall complete Attachment B-1 and, if needed, Attachment B-2.

☐ **A. Inflation Factor Adjustment to Cost Estimate**

The Cost Estimate may be adjusted for inflation by using an inflation factor. Please complete the calculations below in each subsection to derive the inflation factor that must be used when adjusting the Cost Estimate for inflation and complete subsections A(1)-(3), below.

[1] The Attachment applies to the closure and Long-Term Care activities associated with a Phosphogypsum Stack System or a Component thereof.

Inflation Factor

[x] Last Published or Imputed Quarterly Deflator ______________

[y] Quarterly Deflator in effect at the time of the last Current Dollar Cost Estimate *([identify the Deflator date]):* ______________

[x] ÷ [y] Inflation Factor: ______________

☐ (1) Adjusted Physical Closure Cost Estimate – Current Dollars

Physical Closure cost (last): ______________

Physical Closure cost (last Current Dollar Cost Estimate)		Inflation Factor		**Inflation Adjusted Physical Closure Cost Estimate (Current Dollars)**
___________________________	X	______________	=	____________________________

☐ (2) Adjusted Long-Term Care Cost Estimate – Current Dollars

Long-Term Care cost (last): ______________

Long-Term Care cost (last Current Dollar Cost Estimate)		Inflation Factor		**Inflation Adjusted Long-Term Care cost (Current Dollars)**
___________________________	X	______________	=	____________________________

☐ (3) Adjusted Water Treatment Cost Estimate – Current Dollars

Water Treatment cost (last): ______________

Water Treatment cost (last Current Dollar Cost Estimate)		Inflation Factor		**Inflation Adjusted Water Treatment cost (Current Dollars)**
___________________________	X	______________	=	____________________________

Total Cost Estimate Using Inflation Factor

Physical Closure Cost Estimate: ____________________

+

Long-Term Care Cost Estimate ____________________

+

Water Treatment Cost Estimate ____________________

Total Cost Estimate Financial Assurance ____________________

☐ **B. Current Dollar and Substantive Adjustment to Cost Estimate**

If performing an annual inflationary adjustment in Current Dollars or a Substantive Adjustment, then submit the certification from the independent qualified professional engineer (box 1).

☐ (1) Certification by Third-Party Engineer

This is to certify that the estimate of physical closure, Long-Term Care, and water treatment costs specified below and in Attachment B-1, pertaining to the engineering features of this Phosphogypsum Stack System, have been examined by me and found to conform to engineering principles applicable to such systems. In my professional judgment, the Cost Estimate is a true, correct and complete representation of the estimated financial liabilities for Stack Closure and Long-Term Care of the Facility as of *[date]*, performed in accordance with the methodology set forth in Section II, Appendix 2, of the Consent Decree

(a) Physical Closure Cost Estimate: ______________________
   1. Physical Closure costs ($ [*insert current costs*])

(b) Long-Term Care Cost Estimate: ______________________
   1. Long-Term Care costs ($ [*insert current costs*])

(c) Water Treatment Cost Estimate: ______________________
   1. Water treatment costs ($ [*insert current costs*])

(d) **Total Cost Estimate:** ______________________
   (Add lines (a), (b), and (c), above.)

____
Signature of Engineer

____
Wyoming Registration Number (affix seal)

____
Name & Title (please type)

____

____
Mailing Address

____
Telephone Number

____
Engineer E-Mail Address

Simplot Rock Springs Consent Decree
Appendix 2, Attachment B-1, Form 1

CLOSURE COST ESTIMATE

A. GYPSUM STACK CLOSURE

Activity	Quantity	Unit	Unit Cost	Total Cost
1. Top Grading and Cover				
1a. General Excavation and Fill		cy		$0
1b. Dewatering, Fine Grading & Compaction		acres		$0
1c. 60-mil HDPE Liner Materials (Lime Ponds)		acres		$0
1d. 60-mil HDPE Liner Installation (Lime Ponds)		acres		$0
1e. 40-mil HDPE Liner Installation (Other Top Ponds)		acres		$0
1f. 40-mil HDPE Liner Installation (Other Top Ponds)		acres		$0
1g. 24" Thick Soil Cover		cy		$0
1h. Grassing by Seeding		acres		$0
1i. Subtotal		**acres**		**$0**
2. Side Slope Grading and Cover				
2a. General Excavation and Fill		cy		$0
2b. Fine Grading & Compaction		acres		$0
2c. Dolomite Addition		acres		$0
2d. 12" Thick Soil Cover		cy		
2e. Grassing by Seeding		acres		$0
2f. Subtotal		**acres**		**$0**
3. Side Slope Drains		**lf**		**$0**
4. Toe Drain		**lf**		**$0**
5. Mid-Slope Swale				
5a. Grading & Compaction		acres		$0
5b. Fine Grading & Compaction		acres		$0
5c. 60-mil HDPE Textured Liner Materials		acres		$0
5d. 60-mil HDPE Textured Liner Installation		acres		$0
5e. 24" Thick Soil Cover (3 mile RT for borrow soil)		cy		$0
5f. Grassing by Seeding & Sodding		acres		$0
5g. Subtotal		**acres**		**$0**
6. Toe Drainage Swale and Surge Ponds				
6a. Grading & Compaction		acres		$0
6b. Fine Grading & Compaction		acres		$0
6c. 60-mil HDPE Textured Liner Materials		acres		$0
6d. 60-mil HDPE Textured Liner Installation		acres		$0
6e. 24" Thick Soil Cover (3 mile RT for borrow soil)		cy		$0
6f. Grassing by Seeding & Sodding		acres		$0
6g. Subtotal		**acres**		**$0**
7. Surface Water Control		**acres**		**$0**
8. Security Fence (existing)		**lf**		**$0**
9. Security Fence Gates and Signage (existing)		**lump**		**$0**
10. Subtotal - Gypsum Stack Construction (Lines 1i, 2f, 3, 4, 5g, 6g, 7-9)		**acres**		**$0**
11. Permitting		**lump**		**$0**
12. Design, Construction Management & QA/QC [%]		**lump**		**$0**
13. Construction Surveying [%]		**lump**		**$0**
SUBTOTAL STACK CLOSURE		**acres**		**$0**

B. RETURN WATER/SURGE POND

1. Grading and Cover	-	
1a. Dewatering, Fine Grading & Compaction	acres	$0
1b. 40-mil HDPE Liner Materials	acres	$0
1c. 40-mil HDPE Liner Installation	acres	$0
1d. 24" Thick Soil Cover	cy	$0
1e. Grassing by Seeding	acres	$0
1f. Subtotal	**acres**	
2. Surface Water Control	**lump**	**$0**
3. Subtotal	**acres**	**$0**
4. Design, Construction Management & QA/QC [%]	**lump**	**$0**
5. Construction Surveying [%]	**lump**	**$0**
TOTAL RETURN POND CLOSURE COST	**acres**	**$0**

C. LIME SLUDGE POND CLOSURE

	-	-	
1. Grading and Cover	-	-	
1a. Dewatering, Drying & Surface Stabilization	acres		$0
1b.12" Thick Soil Cover (80 acres)	cy		$0
1c. 24" Thick Liner Soil Cover (20 acres)	cy		$0
1d. Grassing by Seeding	acres		$0
1e. Subtotal	**acres**		**$0**
2. Surface Water Control	**lump**		
3. Subtotal	**acres**		**$0**
4. Design, Construction Management & QA/QC [%]	**lump**		**$0**
5. Construction Surveying [%]	**lump**		**$0**
LIME SLUDGE POND CLOSURE	**acres**		**$0**

D. 5-YEAR CLOSURE PERIOD O&M AND MONITORING

1. O&M included with Water Treatment and Water Treatment Labor Costs	
2. Surface Water Monitoring included with Long-Term Care Costs	**$0**
3. Groundwater Monitoring included in Long-Term Costs	**$0**

E. ADMINISTRATIVE COSTS during 5-year Closure Period	
1. Project Management, Accounting and Construction Management	
2. Vehicle Rental	**$0**
3. Trustee Expense	**$0**
	$0
SUBTOTAL ADMINISTRATIVE COSTS	
F. REGIONAL CONSTRUCTION FACTOR	
RSMeans 2018, Lakeland Florida to Rock Springs, Wyoming	**$0**
G. CONTINGENCY (5%)	
	$0
TOTAL CLOSURE CONSTRUCTION COST acres	**$0**

LONG-TERM CARE COST ESTIMATE
J.R. SIMPLOT ROCK SPRINGS FACILITY
(Existing Plus 5-Year Geometry)

Post Closure Care Items	**Estimated Annual Cost (____Dollars)**		
	Initial Closure [5 YEARS]	**Pond Closure** [10 YEARS]	**Post Closure Care** [50 YEARS]
1. Administrative, Inspection Costs			
2. Vehicle Costs			
3. Trustee Costs			
4. Site Security/Fence Maintenance			
5. Monitoring Wells Sampling and Testing			
6. Surface Water Sampling and Testing			
7. Mowing			
8. Land Surface Care & Contingency Repairs			
9. Pump Operation, Maintenance			
10. Piezometer Operation, Maint. & Contingency Repairs			
TOTAL ANNUAL COST	**$0**	**$0**	**$0**
TOTAL COST INCLUDING 5% CONTINGENCY ON ITEMS 1, 2 & 3			

NOTES AND ASSUMPTIONS ASSOCIATED WITH ROW NUMBERS ABOVE:

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

COST ESTIMATE FOR PROCESS WATER TREATMENT
J.R. SIMPLOT ROCK SPRINGS FACILITY
(Existing Plus 5-Year Geometry)

Item	**Process Water**			
	Quantity		**Treatment**	
	Acre - Feet	Billion Gal.	Unit Cost ($/1000 Gal)	Cost (MM$)
1. Ponded Water to Evaporate		0.00		
2. Drainable Pore Water to Evaporate		0.00		
3. Drainable Pore Water to Treat				
4. Total Infiltration		0.00		
5. Water Balance During Closure		0.00		
TOTAL WATER QUANTITY	**0**	**0.00**		

Expenditure Period	**Water Treated Billion Gallons**	**Treatment Cost (MM$)**	**Avg. Unit Cost ($1000 Gal)**	**Treatment Cost with Contingency**
Year 1 through 5				
Year 6 through 15				
Year 16 through 65				
Year 66 through 150				
TOTAL QUANTITY AND TREATMENT COST	**0.00**	**0.00**		

Notes and Assumptions:

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

ADJUSTING LONG-TERM CARE AND ASSOCIATED WATER TREATMENT COSTS IN THE CLOSURE PLAN TO CALCULATE CURRENT COSTS

Instructions:

1. *Appendix 8 (Table 3.5) provides the three areas of primary costs associated with the Closure Plan: physical closure cost; Long-Term Care cost; and annual water treatment costs.*
2. *Use the information and formulas, below, to determine the Current Dollars for the physical closure, Long-Term Care and annual water treatment costs in the Closure Plan (i.e., columns [C] and [E], below).*
3. *The physical closure, Long-Term Care and annual water treatment costs in the Closure Plan in Current Dollars to be used in columns [B] and [D], below, shall be derived, as appropriate, by calculating the inflation adjusted physical closure, Long-Term Care and water treatment costs pursuant to Section II.A.(1)-(3) of Attachment B.*

r =	*Inflation Factor*	*As specified in Paragraph 4.b(2), Appendix 2,*
t =	*Year*	*Year in which costs are incurred.*
CE date =	*Year*	*Year in which costs are estimated.*

Year	**Physical Closure Costs**		**Long-Term Care Costs**		**Associated Water Treatment Costs**	
	Current Dollars	**Inflated Annual Dollars (as of year in which cost incurred)**	**Current Dollars**	**Inflated Annual Dollars (as of year in which cost incurred)**	**Current Dollars**	**Inflated Annual Dollars (as of year in which cost incurred)**
[A]			**[B]**	**[C] = [B] * (r) $^{([t] - [CE Date])}$**	**[D]**	**[E] = [D] * (r) $^{([t] - [CE Date])}$**
2021						
2022						
2023						
2024						
2025						
2026						
2027						
2028						
2029						
2030						
2031						
2032						
2033						
2034						
2035						
2036						
2037						
2038						
2039						

Year	Physical Closure Costs		Long-Term Care Costs		Associated Water Treatment Costs	
	Current Dollars	Inflated Annual Dollars (as of year in which cost incurred)	Current Dollars	Inflated Annual Dollars (as of year in which cost incurred)	Current Dollars	Inflated Annual Dollars (as of year in which cost incurred)
[A]			[B]	[C] = [B] * (r) $^{([t] – [CE Date])}$	[D]	[E] = [D] * (r) $^{([t] – [CE Date])}$
2040						
2041						
2042						
2043						
2044						
2045						
2046						
2047						
2048						
2049						
2050						
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2071						
2072						
2073						
2074						

Year	Physical Closure Costs		Long-Term Care Costs		Associated Water Treatment Costs	
	Current Dollars	Inflated Annual Dollars (as of year in which cost incurred)	Current Dollars	Inflated Annual Dollars (as of year in which cost incurred)	Current Dollars	Inflated Annual Dollars (as of year in which cost incurred)
[A]			[B]	[C] = [B] * (r) ([t] – [CE Date])	[D]	[E] = [D] * (r) ([t] – [CE Date])
2075						
2076						
2077						
2078						
2079						
2080						
2081						
2082						
2083						
2084						
2085						
2086						
2087						
2088						
2089						
2090						
[...]						

Calculating Annual Costs for Closure

Instructions: According to Appendix 2, Section II, Paragraph 4(f), Simplot shall submit Attachment C with every Cost Estimate. Attachment C must be updated annually only for inflation pursuant to Appendix 2, Section II, Paragraph 4(b), and must be updated every five years pursuant to the requirements in Appendix 2, Section II, Paragraph 4(d). The costs represented in Attachment C are in Current Dollars for the year in which the submittal is required. When filling out Attachment C, use the information and definitions specified below, and provide any assumptions utilized to provide the information. If additional columns are required to accurately represent the annual volume of water to be addressed during Stack Closure or Long-Term Care, insert such information with appropriate notes and assumptions for the additional information.

1. ***Ponded Water Inventory*** *is the annual volume of water to be removed from any process water cooling pond,*[1] *the water on top of the Phosphogypsum Stack, the return canal and collection ditches, and from other storage or surge ponds, or sumps in excess of ¼ acre, that are part of the Phosphogypsum Stack System.*
2. ***Drainable Pore Water*** *is the annual volume of water contained within the pores of the Phosphogypsum that gravity drains during and after closure of the Phosphogypsum Stack.*
3. ***Total Annual Water Volume*** *is the summation of Ponded Water Inventory, water balance during closure, and Drainable Pore Water.*
4. ***Annual Average Treatment Rate****, in gallons per minute (GPM), is determined by dividing the Total Annual Water Volume by 525,600 minutes per year.*
5. ***Annual Water Treatment Cost*** *is the total annual cost in millions of dollars needed for the Total Annual Water Volume to manage and treat the process water.*
6. ***Planning & Closure Period O&M and Monitoring Costs*** *represent annual program management costs, miscellaneous O&M expenses, Surface Water monitoring costs, Groundwater monitoring costs and piezometer installation costs incurred during the fifteen-year closure construction period.*
7. ***Physical Closure Costs*** *represent the annual cost of all materials, labor and equipment to close the Phosphogypsum Stack System including but not limited to: grading and earthwork with soil and Phosphogypsum; HDPE Liner and associated geosynthetics, cost of clay and mixing if utilized, Liner soil cover; side slope Drains; Toe Drains; sumps/pump stations; header pipes; grassing soil and Phosphogypsum surfaces; security fence; Surface Water control; permitting and design services; and construction management, QA/QC, and surveying.*
8. ***Program Management Costs*** *represent the annual costs to manage the Facility during the 50-year Long-Term Care period.*

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[1] At this time, March 2020, Rock Springs does not have a process water cooling pond.

9. ***Long-Term Care Cost*** *is based on annual: (a) costs for on-site personnel to conduct maintenance, inspection and care activities during the Long-Term Care period with a 5% contingency allowance; (b) Surface Water and Groundwater monitoring and analysis costs; (c), mowing and land surface care costs; (d) contingency repairs (e.g., restoration of eroded areas); and (e) pump operation and maintenance costs (e.g., convey water from seepage collection system to water treatment).*
10. ***Total Water Treatment and Closure Costs*** *represent the sum of the Annual Water Treatment Costs, Planning & Closure Period O&M and Monitoring Costs, Closure Construction Costs, Long-Term Care Period Program Management Costs, and Long-Term Care Costs.*

Attachment C - ANNUAL COSTS FOR CLOSURE
___________________ FACILITY
Year 20__ CURRENT CONDITION CLOSURE

Period	Sequence Year	Calendar Year	Physical Closure Cost ($)	Long-Term Care Cost ($)	Water Volume (billion gallons): Ponded Water Inventory	Water Volume (billion gallons): Drainable Pore Water	Water Volume (billion gallons): Total Annual Water Volume	Capital Cost for Treatment ($)	Annual Average Treatment Rate (gpm)	Annual Water Treatment Cost ($)	Total Annual Cost ($)
15-year Closure Construction Period	1	20__									
	2	20__									
	3	20__									
	4	20__									
	5	20__									
	6	20__									
	7	20__									
	8	20__									
	9	20__									
	10	20__									
	11	20__									
	12	20__									
	13	20__									
	14	20__									
	15	**20__**									
50-year Post-Closure Construction Long-Term Care Period	1	20__									
	2	20__									
	3	20__									
	4	20__									
	5	20__									
	6	20__									
	7	20__									
	8	20__									
	9	20__									
	10	20__									
	11	20__									
	12	20__									
	13	20__									
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	40	20__									
	41	20__									
	42	20__									
	43	20__									
	44	20__									
	45	20__									
	46	20__									
	47	20__									
	48	20__									
	49	20__									
	50	**20**									
	100	**20__**									
Total Construction/Care Cost ($)											
Total Water Volume (Billion gal)											
Total Water Treatment Cost ($)											

<u>Instructions</u>: *The trust agreement for a trust fund, as specified in Appendix 2 of the Consent Decree, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.*

TRUST AGREEMENT

Trust Agreement, the "Agreement," entered into as of [*date*] by and between [*name of the owner or operator*], a [*name of State*] [*insert "corporation," "partnership," "association," or "proprietorship"*], the "Grantor," and [*name of corporate trustee*], [*insert "incorporated in the State of ----" or "a national bank"*], the "Trustee."

Whereas, EPA has entered into a Consent Decree with [*Defendant and the owner or operator of the Facility(ies)*] requiring [*Defendant and the owner or operator of the Facility(ies)*] to provide Financial Assurance that funds will be available when needed for Stack Closure and/or Long-Term Care of its Facility[*ies*] covered under the Consent Decree [*need to insert additional description of the Consent Decree*].

Whereas, the Grantor may elect to establish a trust to provide, in conjunction with other allowable Financial Assurance mechanisms as specified in Appendix 2, for all or part of such Financial Assurance for the Facility[*ies*] identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this Agreement, and the Trustee is willing to act as trustee,

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:[1]

(a) The term "Grantor" means the owner or operator of the Facility[*ies*] who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any Successor Trustee.

Section 2. Identification of Facility[*ies*] and Cost Estimates. This Agreement pertains to the Facility[ies] and Cost Estimates identified on attached Schedule A [*on Schedule A, for each Facility list the EPA and (abbreviation for State Agency) Identification Number, name, address, and the current Stack Closure and/or Long-Term Care Cost Estimates, or portions thereof, for which Financial Assurance is demonstrated by this Agreement*].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of EPA and [*abbreviation for State Agency*]. The

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[1] Any capitalized terms that are not otherwise defined in this Agreement shall have the meaning as set forth in the Consent Decree, or Appendices 2 and 9, as attached thereto.

Grantor and the Trustee intend that no Third Party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPA.

Section 4. Payment for Stack Closure and Long-Term Care. The Trustee shall make payments from the Fund only as directed in writing by the appropriate EPA Regional Administrator in accordance with Section 14. The Trustee shall provide for reimbursements to the Grantor or other persons from the Fund for the payment of the costs of Stack Closure and/or Long-Term Care of the Facility[*ies*] covered by this Agreement only as directed in writing by the appropriate EPA Regional Administrator. In addition, the Trustee shall refund to the Grantor only such amounts as the EPA Regional Administrator specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his/her duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution un-invested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.
Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied

against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Semiannual Accounting. The Trustee shall, every six (6) months from the date of establishment of the Fund, furnish to the Grantor and to the appropriate EPA Regional Administrator (or the designee), a statement confirming the value of the Trust and a cumulative and calendar year accounting of the amount the Trustee has released from the Fund for reimbursement of Stack Closure and Long-Term Care expenditures. The Trustee shall furnish additional valuation statements and accountings of the released funds to the Grantor and to the appropriate EPA Regional Administrator, as instructed in writing by the EPA Regional Administrator. Any securities in the Fund shall be valued at market value as of no more than sixty (60) days prior to the Anniversary Date of establishment of the Fund or no more than sixty (60) days prior to a semi-annual accounting. The failure of the Grantor to object in writing to the Trustee within ninety (90) days after the statement has been furnished to the Grantor and the EPA Regional Administrator shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The Successor Trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the Successor Trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a Successor Trustee or for instructions. The Successor Trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPA Regional Administrator, and the present Trustee by certified mail ten (10) days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee.

(a) All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions.

(b) All orders, requests, and instructions by the EPA Regional Administrator to the Trustee shall be in writing, signed by the appropriate EPA Regional Administrator, unless otherwise indicated in instructions to the Trustee as signed by the EPA Regional Administrator. Initial instructions by the EPA Regional Administrator to the Trustee are attached as Exhibit B. New, revised or amended instructions by the EPA Regional Administrator to the Trustee will be dated and appended hereto in this Exhibit and shall be designated Exhibit B followed by a numeric designation (e.g., Exhibit B-1, Exhibit B-2). The Trustee shall act and shall be fully protected in acting in accordance with the EPA Regional Administrator's orders, requests, and instructions.

(c) The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or EPA hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or EPA, except as provided for herein and found in Exhibit B.

Section 15. Notice of Payment. The Trustee shall notify the appropriate EPA Regional Administrator of payment to the trust fund, by certified mail within ten (10) days following said payment to the trust fund. The notice shall contain the name of the Grantor, the date of payment, the amount of payment and the current value of the trust fund.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the appropriate EPA Regional Administrator, or by the Trustee and the appropriate EPA Regional Administrator if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the EPA Regional Administrator or by the Trustee and the EPA Regional Administrator if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor, and/or the EPA Regional Administrator issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Wyoming.

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. Whenever the term "EPA Regional Administrator" is used, they shall be construed to include the term "or his/her designee." The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the wording specified in Attachment D, Form 1 of Appendix 2 of the Consent Decree [*need to insert more information regarding the description of the CD, such as the name of the case, the case number, etc*].

[Signature of Grantor]

[Title]

Attest:

[Title]

[Seal]

[Signature of Trustee]

Attest:

[Title]

[Seal]

(2) The following is an example of the certification of acknowledgment which must accompany the trust agreement for a trust fund as specified Appendix 2 of the Consent Decree.

State of

County of

On this [*date*], before me personally came [*owner or operator*] to me known, who, being by me duly sworn, did depose and say that she/he resides at [*address*], that she/he is [*title*] of [*corporation*], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

[Signature of Notary Public]

Instructions: A surety bond guaranteeing payment into a trust fund, as specified in Appendix 2 of the Consent Decree, shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

[*Letterhead of Bond Issuer*]

FINANCIAL GUARANTEE BOND

Date Bond Executed: ________________

Effective Date: ________________

Principal: [*Legal name and business address of Defendant*]

Type of organization: [*Insert "individual," "joint venture," "partnership," or "corporation"*]

State of incorporation: _______________

Surety[*ies*]: [*Name(s) and business address(es)*]

EPA Identification Number, name, address, and Stack Closure and/or Long-Term Care amount(s) for each Facility guaranteed by this bond [*indicate Stack Closure and/or Long- Term Care amounts separately*]: _________________

Total Penal Sum of Bond: $ __________________

Surety's Bond Number: __________________

Know All Persons By These Presents, That we, the Principal and Surety[*ies*] hereto are firmly bound to EPA in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal, the named Defendant, entered into a Consent Decree, [*insert description of the Consent Decree such as name of the case, the case number, etc.*] with EPA pursuant to the Resource Conservation and Recovery Act ("RCRA"), as amended, to resolve civil claims by establishing injunctive relief under the Consent Decree;[1]

Whereas said Principal is required to provide Financial Assurance pursuant to Paragraph 26 of the Consent Decree for Stack Closure and Long-Term Care; and

[1] Any capitalized terms that are not otherwise defined in this Financial Guarantee Bond shall have the meaning as set forth in the Consent Decree, or Appendices 2 and 9, as attached thereto.

Whereas said Principal shall establish a standby trust fund as is required when a financial guarantee bond ("surety bond" or "bond") is used to provide such Financial Assurance:

Now, Therefore, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of Stack Closure and Long-Term Care [*or insert, as appropriate, either Stack Closure or Long-Term Care if the Financial Assurance provided is limited to one of the obligations*] of each Facility identified above, fund the standby trust fund in the amount(s) identified above for the Facility,

Or, if the Principal shall fund the standby trust fund in such amount(s) within 15 days after a final order to begin Stack Closure and Long-Term Care [*or insert, as appropriate, either Stack Closure or Long-Term Care if the Financial Assurance provided is limited to one of the obligations*] is issued by EPA or a U.S. district court or other court of competent jurisdiction,

Or, if the Principal shall provide alternate Financial Assurance, as specified in Appendix 2 to the Consent Decree and obtain EPA's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and EPA from the Surety[*ies*], then the obligation of the Surety or Sureties, as applicable, shall be null and void; otherwise it is to remain in full force and effect.

The Surety[*ies*] shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by EPA that the Principal has failed to perform as guaranteed by this bond, the Surety[*ies*] shall place funds in the amount guaranteed for the Facility[*ies*] into the standby trust fund as directed by EPA.

The liability of the Surety[*ies*] shall not be discharged by any payment or succession of payments hereunder, unless and until such payments or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety[*ies*] hereunder exceed the amount of said penal sum [*insert the following text if more than one Surety is covering the Financial Assurance obligation: "as specified below for each individual Surety"*].

The Surety[*ies*] may cancel the bond by sending notice of cancellation by certified mail to the Principal, EPA and [*insert abbreviation for State Agency*], provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal and EPA, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety[*ies*], provided, however, that no such notice shall become effective until the Surety[*ies*] receive[*s*] written authorization for termination of the bond by EPA.

Principal and Surety[*ies*] hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new Stack Closure and Long-Term Care [*or insert, as appropriate, either Stack Closure or Long-Term Care if the Financial Assurance provided is limited to one of the obligations*] amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of EPA.

In Witness Whereof, The Principal and Surety[*ies*] have executed this Financial Guarantee Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety[*ies*] and that the wording of this surety bond is identical to the wording specified in Appendix 2, Attachment D, Form 2 of the Consent Decree for a Financial Guarantee Bond.

FOR THE PRINCIPAL:

Date: ______________		By [*signature*]:	__________________________
		Printed name:	__________________________
		Title:	__________________________
		Corporate seal:	__________________________

FOR THE CORPORATE SURETY(IES):

[*Name and Address*]

State of incorporation:	__________________________
Liability limit:	$_________________________

Date: ______________		By [*signature*]:	__________________________
		Printed name:	__________________________
		Title:	__________________________
		Corporate seal:	__________________________

[*For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for the Surety above.*]

Bond premium: $_________________________

Instructions: A performance bond guaranteeing performance, as specified in Appendix 2 of the Consent Decree, shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

[*Letterhead of Bond Issuer*]

PERFORMANCE BOND

Date Bond Executed: _______________

Effective Date: _______________

Principal: [*Legal name and business address of Defendant*]

Type of organization: [*Insert "individual," "joint venture," "partnership," or "corporation"*]

State of incorporation: _______________

Surety[*ies*]: [*Insert name(s) and business address(es)*]

EPA Identification Number, name, address, and Stack Closure and/or Long-Term Care amount(s) for each Facility guaranteed by this performance bond [*indicate Stack Closure and/or Long-Term Care amounts separately*]: _______________

Total Penal Sum of Bond: $ _______________

Surety's Bond Number: _______________

Know All Persons By These Presents, That we, the Principal and Surety[*ies*] hereto are firmly bound to EPA in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal, the named Defendant, entered into a Consent Decree, [*insert description of the Consent Decree such as name of the case, the case number, etc.*] with EPA pursuant to the Resource Conservation and Recovery Act ("RCRA"), as amended, to resolve civil claims by establishing injunctive relief under the Consent Decree;[1]

Whereas said Principal is required to provide Financial Assurance pursuant to Paragraph 26 of the Consent Decree for Stack Closure and Long-Term Care, and

[1] Any capitalized terms that are not otherwise defined in this Performance Bond shall have the meaning as set forth in the Consent Decree, or Appendices 2 and 9, as attached thereto.

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such Financial Assurance:

Now, Therefore, the conditions of this obligation are such that if the Principal shall faithfully perform Stack Closure, whenever required to do so, of each Facility for which this bond guarantees Stack Closure, in accordance with the Closure Plan and other requirements of the Consent Decree as such Closure Plan and Consent Decree may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended,

And if the Principal shall faithfully perform Long-Term Care, of each Facility for which this bond guarantees Long-Term Care, in accordance with the Closure Plan and other requirements of the Consent Decree as such Closure Plan and Consent Decree may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended,

Or, if the Principal shall provide alternate Financial Assurance as specified in Appendix 2 to the Consent Decree, and obtain the EPA's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and EPA from the Surety[*ies*], then this obligation shall be null and void, otherwise it is to remain in full force and effect. The Surety[*ies*] shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

If EPA issues a Work Takeover Notice pursuant to Section VI (Work Takeover) of the Consent Decree stating that the Principal has failed to perform Stack Closure in accordance with the Closure Plan and Consent Decree for a Facility for which this bond guarantees performance of Stack Closure, and the Principal fails within thirty (30) Days to remedy the circumstances giving rise to EPA's issuance of such notice, the Surety[*ies*] shall either perform Stack Closure in accordance with the Closure Plan and the Consent Decree or place the Stack Closure amount guaranteed for the Facility into the standby trust fund as directed by the EPA.

If EPA issues a Work Takeover Notice pursuant to Section VI (Work Takeover) of the Consent Decree stating that the Principal has failed to perform Long-Term Care in accordance with the Closure Plan and Consent Decree for a Facility for which this bond guarantees performance of Long-Term Care, and the Principal fails within thirty (30) Days to remedy the circumstances giving rise to EPA's issuance of such notice, the Surety[*ies*] shall either perform Long-Term Care in accordance with the Closure Plan and the Consent Decree or place the Long-Term Care amount guaranteed for the Facility into the standby trust fund as directed by the EPA.

Upon notification by EPA that the Principal has failed to provide alternate Financial Assurance as required by Appendix 2 to the Consent Decree, and obtain written approval of such assurance from EPA during the 90 days following receipt by both the Principal and EPA of a notice of cancellation of the bond, the Surety[*ies*] shall place funds in the amount guaranteed for the Facility[*ies*] into the standby trust fund as directed by EPA.

The Surety[*ies*] hereby waive[*s*] notification of amendments to the Consent Decree, Initial Closure Plan, Permanent Closure Plan, permits, applicable laws, statutes, rules, and regulations and agrees that no such amendment shall in any way alleviate its [*their*] obligation on this bond.

The liability of the Surety[*ies*] shall not be discharged by any payment or succession of payments hereunder, unless and until such payments or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety[*ies*] hereunder exceed the amount of said penal sum.

The Surety[*ies*] may cancel the bond by sending notice of cancellation by certified mail to the Principal and EPA, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and EPA, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety[*ies*], provided, however, that no such notice shall become effective until the Surety[*ies*] receive[*s*] written authorization for termination of the bond by EPA.

Principal and Surety[*ies*] hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new Stack Closure and/or Long-Term Care amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of EPA.

In Witness Whereof, The Principal and Surety[*ies*] have executed this Performance Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety[*ies*].

FOR THE PRINCIPAL:

Date: ______________

By [*signature*]: __________________________

Printed name: __________________________

Title: __________________________

Corporate seal: __________________________

FOR THE CORPORATE SURETY(IES):

[*Name and Address*]

State of incorporation: ________________________

Liability limit: $________________________

Date: ______________

By [*signature*]: ________________________

Printed name: ________________________

Title: ________________________

Corporate seal: ________________________

[*For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for the Surety above.*]

Bond premium: $________________________

Instructions: A letter of credit guaranteeing payment into a trust fund, as specified in Appendix 2 of the Consent Decree, shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

IRREVOCABLE STANDBY LETTER OF CREDIT[1]

Regional Administrator, Region __, EPA

Dear Sir(s) or Madam(s): We hereby establish our Irrevocable Standby Letter of Credit No.___ in your favor, at the request and for the account of [*Defendant's, name and address, the owner and/or operator of the Facility(ies)*] up to the aggregate amount of [*insert amount in words*] U.S. dollars $[*insert amount in numbers*], available upon presentation by you of

(1) your sight draft, bearing reference to this letter of credit No. ___, and

(2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to Consent Decree [*case name/docket information for consent decree*] entered into pursuant to the Resource Conservation and Recovery Act of 1976, as amended."

This letter of credit is effective as of [*date*] and shall expire on [*date at least 1 year later*], but such expiration date shall be automatically extended for a period of [*at least 1 year*] on [*date*] and on each successive expiration date, unless, at least 120 Days before the current expiration date, we notify both you and [*Defendant's name, the owner and/or operator of the Facility(ies)*] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight drafts for 120 Days after the date of receipt by both you and [*Defendant's name, the owner and/or operator of the Facility(ies)*], as shown on the signed return receipts.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the entire amount of the draft directly into the Trust Fund (Account No.___) created by the Trust Agreement entered by [*insert Defendant's* name, *the owner and/or operator of the Facility(ies)*], dated ____ 20__, in accordance with your instructions.

[*Signature(s) and title(s) of official(s) of issuing institution*] [*Date*]

This credit is subject to [*insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code"*].

[1] Any capitalized terms that are not otherwise defined in this Irrevocable Standby Letter of Credit shall have the meaning as set forth in the Consent Decree, or Appendices 2 and 9, as attached thereto.

U.S. Environmental Protection Agency
Regional Administrator
Region __

[*Insert State Agency designation*]
Director

Attention: [*Specify EPA Office and State Office*]

Dear Sir(s) or Madam(s):

In accordance with Appendix 2 of Consent Decree [*case name/docket information for consent decree*] we have established Irrevocable Standby Letter of Credit No. _______ issued by [*name of issuing institution*] on [*issuing date*] in the amount of [*insert amount in words*] U.S. dollars ($[*insert amount in numbers*]) for the following Facility[ies]:

- [*Insert Facility Name*]
- [*EPA Id Number*]
- [*Facility Address*]
- [*Coverage for Stack Closure and/or Long-Term Care*]

I certify that the letter of credit provider is a federally insured financial institution. I certify that the wording of the letter of credit is identical to the wording specified in Attachment D, Form 4, of Appendix 2, of the Consent Decree [*case name/docket information for consent decree*].

Sincerely,

____
[*Insert Name*]
Chief Financial Officer
[*Insert Company/Defendant Name*]

Instructions: A certificate of insurance, as specified in Appendix 2 of the Consent Decree, shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

CERTIFICATE OF INSURANCE FOR STACK CLOSURE AND/OR LONG-TERM CARE[1]

Name and Address of Insurer:
(herein called the "Insurer"): ________________________________
Name and Address of Insured:
(herein called the "Insured"): ________________________________

Facilities Covered: [*List for each Facility: The EPA Identification Number, name, address, and the amount of insurance for Stack Closure and/or the amount of insurance for Long-Term Care (these amounts for all Facilities covered must total the face amount shown below).*]

Face Amount: ________________________________
Policy Number: ________________________________
Effective Date: ________________________________

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance for [*insert "Phosphogypsum Stack System Closure" or "Stack Closure and Long-Term Care" or "Long-Term Care"*] for the Facility[*ies*] identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of *Paragraph 10.d of Section III, Appendix 2 of the Consent Decree (including Consent Decree name and docket information)*, and as such requirements were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such requirements of *Paragraph 10.d of Section III, Appendix 2 of the Consent Decree* is hereby amended to eliminate such inconsistency.

Whenever requested by the EPA Regional Administrator[*s*] of the U.S. Environmental Protection Agency ("EPA), the Insurer agrees to furnish the EPA Regional Administrator[*s*] of the EPA a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in *Attachment D, Form 5 of Appendix 2 of the Consent Decree* and as such requirements were constituted on the date shown immediately below.

[*Authorized signature for Insurer*] ________________________________
[*Name of person signing*] ________________________________
[*Title of person signing*] ________________________________
Signature of witness or notary: ________________________________
[*Date*] ________________________________

[1] Any capitalized terms that are not otherwise defined in this Certificate for Insurance shall have the meaning as set forth in the Consent Decree, or Appendices 2 and 9, as attached thereto.

Instructions: A surety bond guaranteeing payment into a trust fund for third-party liability, as specified in Appendix 2 of the Consent Decree, shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

[*Letterhead of Bond Issuer*]

FINANCIAL GUARANTEE BOND

Surety Bond No. [Insert number]

Parties [Insert name and address of owner or operator], Principal, incorporated in [Insert State of incorporation] of [Insert city and State of principal place of business] and [Insert name and address of surety company(ies)], Surety Company(ies), of [Insert surety(ies) place of business].

EPA Identification Number, name, and address for each Facility guaranteed by this bond: ____

	Sudden Accidental Occurrences	Nonsudden Accidental Occurrences
Penal Sum Per Occurrence	[insert amount]	[insert amount]
Annual Aggregate	[insert amount]	[insert amount]

Purpose: This is an agreement between the Surety(ies) and the Principal under which the Surety(ies), its(their) successors and assignees, agree to be responsible for the payment of claims against the Principal for bodily injury and/or property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental occurrences arising from operations of the Facility or group of facilities in the sums prescribed herein; subject to the governing provisions and the following conditions.

Governing Provisions:

The Principal (the named Defendant) entered into a Consent Decree, [*insert description of the Consent Decree such as name of the case, the case number*, *etc*.] with EPA pursuant to the Resource Conservation and Recovery Act ("RCRA"), as amended, to resolve civil claims by establishing injunctive relief under the Consent Decree.[1]

The Principal is required to provide Financial Assurance pursuant to Paragraph 26 of the Consent Decree for third-party liability.

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[1] Any capitalized terms that are not otherwise defined in this Financial Guarantee Bond shall have the meaning as set forth in the Consent Decree, or Appendices 2 and 9, as attached thereto.

Conditions:

(1) The Principal is subject to the applicable governing provisions that require the Principal to have and maintain liability coverage for bodily injury and property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental occurrences arising from operations of the Facility or group of facilities. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which [insert Principal] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert Principal] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert Principal] under a workers' compensation, disability benefits, or unemployment compensation law or similar law.

(c) Bodily injury to:

(1) An employee of [insert Principal] arising from, and in the course of, employment by [insert Principal]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert Principal]. This exclusion applies:

(A) Whether [insert Principal] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert Principal];

(2) Premises that are sold, given away or abandoned by [insert Principal] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert Principal];

(4) Personal property in the care, custody or control of [insert Principal];

(5) That particular part of real property on which [insert Principal] or any contractors or subcontractors working directly or indirectly on behalf of [insert Principal] are performing operations, if the property damage arises out of these operations.

(2) This bond assures that the Principal will satisfy valid third-party liability claims, as described in condition 1.

(3) If the Principal fails to satisfy a valid third-party liability claim, as described above, the Surety(ies) becomes liable on this bond obligation.

(4) The Surety(ies) shall satisfy a third-party liability claim only upon the receipt of one of the following documents:

(a) Certification from the Principal and the third-party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert name of Principal] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Principal's] Facility should be paid in the amount of $[ ].

[Signature]

Principal

[Notary] Date

[Signature(s)]

Claimant(s)

[Notary] Date;

or,

(b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's Facility or group of facilities.

(5) In the event of combination of this bond with another mechanism for liability coverage, this bond will be considered [insert “primary” or “excess”] coverage.

(6) The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond. In no event shall the obligation of the Surety(ies) hereunder exceed the amount of said annual aggregate penal sum, provided that the Surety(ies) furnish(es) notice

to the Regional Administrator forthwith of all claims filed and payments made by the Surety(ies) under this bond.

(7) The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and the USEPA Regional Administrator for Region [Region #], provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal and the Regional Administrator, as evidenced by the return receipt.

(8) The Principal may terminate this bond by sending written notice to the Surety(ies) and to the EPA Regional Administrator(s) of the EPA Region(s) in which the bonded Facility(ies) is (are) located.

(9) The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules and regulations and agree(s) that no such amendment shall in any way alleviate its (their) obligation on this bond.

(10) This bond is effective from [insert date] (12:01 a.m., standard time, at the address of the Principal as stated herein) and shall continue in force until terminated as described above.

In Witness Whereof, the Principal and Surety(ies) have executed this Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in Appendix 2, Attachment D, Form 6 of the Consent Decree.

PRINCIPAL

[Signature(s)]

[Name(s)]

[Title(s)]

[Corporate Seal]

CORPORATE SURETY[IES]

[Name and address]

State of incorporation:

Liability Limit: $

[Signature(s)]

[Name(s) and title(s)]

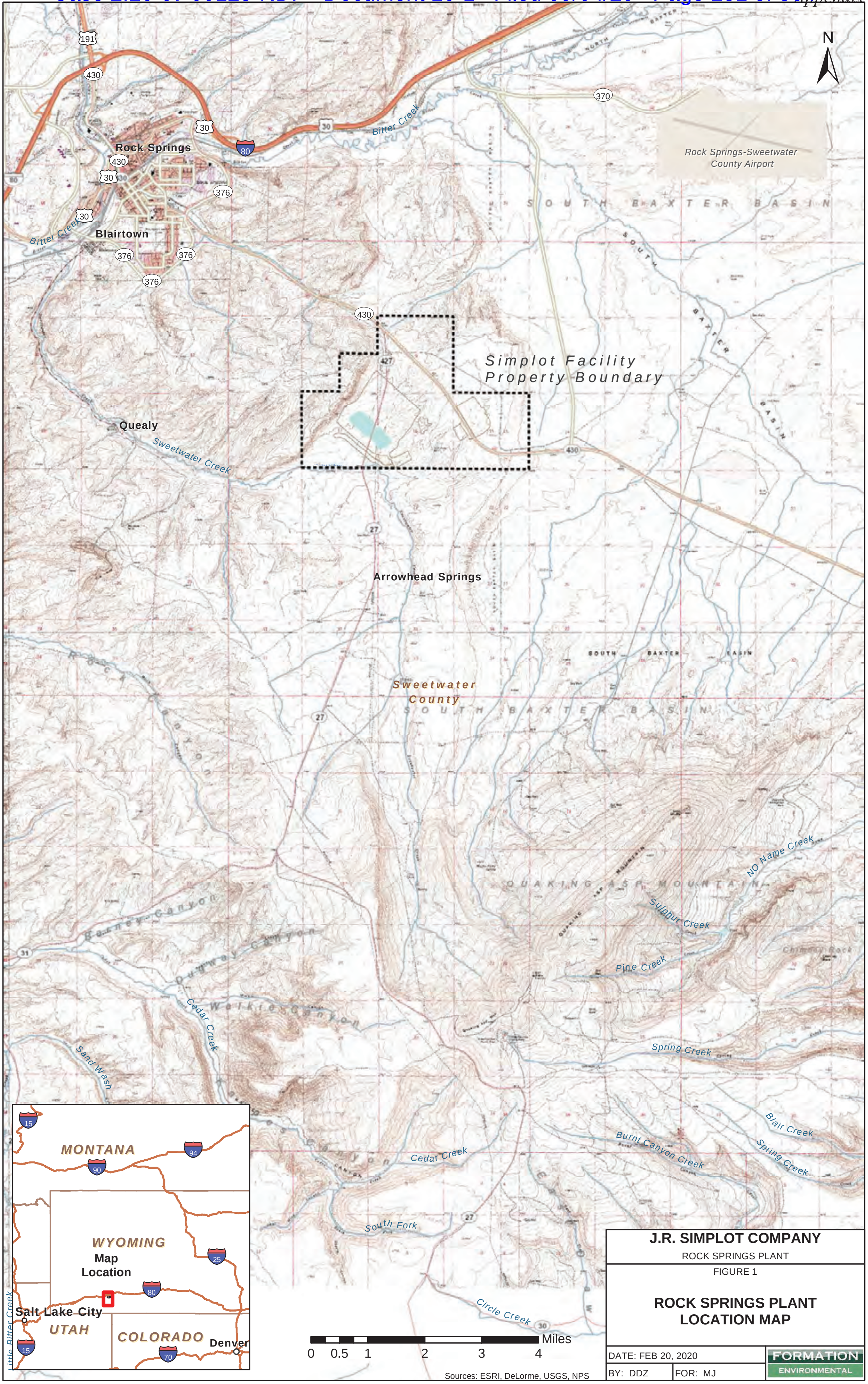
[Corporate seal]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]

Bond premium: $

Appendix 3

Site Maps of the Simplot Rock Springs Facility



J.R. SIMPLOT COMPANY
ROCK SPRINGS PLANT
FIGURE 1
ROCK SPRINGS PLANT LOCATION MAP

DATE: FEB 20, 2020
BY: DDZ FOR: MJ
FORMATION ENVIRONMENTAL

S:\GIS\arcprj2\009-006-Simplot_RockSprings\plt\Fig1_RockSpgsLoc.mxd

J.R. SIMPLOT COMPANY

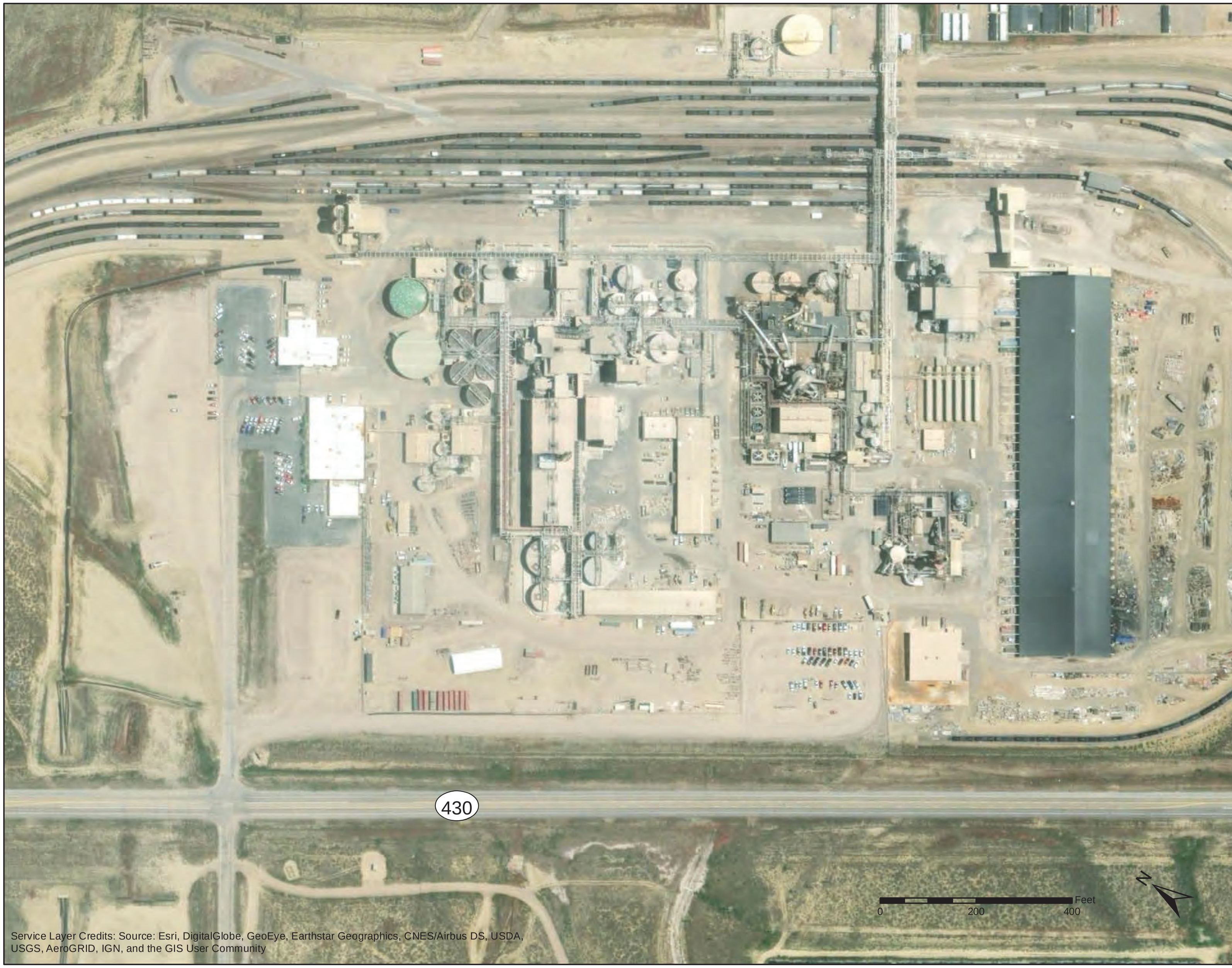
ROCK SPRINGS PLANT

FIGURE 2

ROCK SPRINGS PLANT

DATE: FEB 20, 2020	
BY: DDZ	FOR: MJ

FORMATION ENVIRONMENTAL



J.R. SIMPLOT COMPANY

ROCK SPRINGS PLANT

FIGURE 3

J.R. SIMPLOT
ROCK SPRINGS
MAIN PROCESSING FACILITY

DATE: FEB 21, 2020

BY: DDZ FOR: MJ

FORMATION ENVIRONMENTAL

Appendix 4

Facility Report

Facility Report

Rock Springs

Final

May 14, 2020

Corporate Environmental & Regulatory Affairs
1099 W. Front St., Boise, ID 83702
(208) 780-7303

Table of Contents

I. Introduction

All capitalized terms not otherwise defined in this Facility Report will have the meaning set forth in the Consent Decree or in Appendix 9.

A. Purpose

The purposes of this Facility Report are to:

1. Identify Simplot's Upstream Operations, Downstream Operations, Mixed-Use air pollution control devices (APCDs), and Mixed-Use Units at the Facility.

2. Identify compliance projects set forth in Section VI ("Compliance Projects"). Compliance Projects of this Facility Report include the Acid Value Recovery System and the Granulation Recovery System.

3. Identify certain units associated with Simplot's Acid Value Recovery System and Acid Value Recovery Units. Cleaning wastes or other materials from these units will be recovered into Upstream Operations as designated in this Facility Report or to the Acid Value Recovery System in accordance with Section VI (Compliance Projects).

4. Identify certain units associated with Simplot's SPA Recovery Units. Cleaning wastes or other materials from these units will be recovered directly in the Granulation process as designated in this Facility Report or to the Acid Value Recovery System in accordance with Section VI (Compliance Projects).

5. Identify certain Downstream Operations units associated with Simplot's Granulation Recovery System and Granulation Recovery System Units. Cleaning wastes or other materials from these units will be recovered in the Granulation process as designated in this Facility Report or to the Granulation Recovery System in accordance with Section VI (Compliance Projects).

6. Address phosphoric acid product spills and leaks in accordance with Section VII (Containment of Phosphoric Acid Production Related Spills and Leaks).

7. Identify categories of future equipment installations, materials from which may be managed with materials from Upstream Operations when meeting the conditions set forth in Section VIII (Proposed Phosphoric Acid Production Related Operations) and Section IX (Non-Phosphoric Acid

Production Proposed Projects) and Section XI (Authorized Future Installations).

Hazardous wastes generated from the production of sulfuric acid, washes related to the transport of sulfuric acid to the phosphoric acid plant, and wastes generated from the cleaning of sulfuric acid transportation related equipment are not within the scope of this Facility Report.

B. Overview

A major purpose of the Facility Report is to specify how Simplot will handle processing materials from designated units at the Facility.

For the units designated as part of Upstream Operations or Downstream Operations, or identified as Mixed-Use Units, SPA Recovery Units, Acid Value Recovery Units, or Granulation Recovery Units, cleaning wastes or other materials will be handled as described below.

1. Cleaning wastes or other materials generated from Upstream Operations/ Mixed-Use Units

a. Cleaning Solution Materials

i. If Non-Hazardous Aqueous Cleaning Solution (NHACS), Phosphogypsum Stack System Wastewater, and/or Process Wastewater have been used to clean these units, the cleaning wastes or other materials from these units may be input to Upstream Operations or discharged to the Phosphogypsum Stack System.

ii. Prior to commencement of the Acid Value Recovery System, if Sulfuric Acid Cleaning Solution (SACS) is used to clean these units, the cleaning wastes or other materials from these units may continue to be managed consistent with Simplot's "Consolidated Materials Management Practices" report, as described in the Consent Decree in Paragraph 18. Following commencement of operations of the Acid Value Recovery System, if SACS or Acid Value Recovery System effluent are used to clean these units, then the cleaning wastes or other materials from these units may be input to the Acid Value Recovery System for use in Upstream Operations in accordance with Section VI (Compliance Projects), except in the case of an Acid Value Recovery System process upset (see below).

iii. Following commencement of operations of the Acid Value Recovery System, if Simplot does not utilize the Acid Value Recovery System to recover cleaning wastes or other materials identified in (ii) above, or if any cleaning solutions other than those listed in (i) & (ii) above are used to clean these units, then Simplot must make a RCRA hazardous waste determination, and if the wastes are hazardous, then Simplot shall manage the materials in accordance with RCRA Requirements.

b. Scrubber Materials

Process materials from phosphoric acid operations (e.g., scrubber effluent) may be input to Upstream Operations or discharged to the Phosphogypsum Stack System. Scrubber cleaning materials must be managed as described in 1.a above.

c. Spills and Leaks

These are handled in accordance with Appendix 5.A (Minimizing and Addressing Spills and Leaks) and Section VII (Containment of Phosphoric Acid Production Related Spills and Leaks). Spills and leaks of phosphoric acid, sulfuric acid[1], FSA, SACS, or Acid Value Recovery System effluent in containable impervious areas ("Containable Impervious Areas") may be returned to a tank with similar material or input to the Acid Value Recovery System for use in Upstream Operations in accordance with Section VI (Compliance Projects). Spills and leaks of Process Wastewater, Phosphogypsum Stack System Wastewater, or NHACS in Containable Impervious Areas may be returned to the Phosphogypsum Stack System.

2. Materials Generated from Acid Value Recovery System Operations

a. Acid Value Recovery System Units

Prior to commencement of the Acid Value Recovery System, if SACS, NHACS, Process Wastewater, or Phosphogypsum Stack System Wastewater are used to clean Acid Value Recovery System Units, then the cleaning wastes or other materials from these units may continue to be managed consistent with Simplot's Consolidated Materials Management Practices. Following commencement of operation of the Acid Value Recovery System, SPA secondary solids (filter solids) can be used in the specific Upstream Operations/Mixed-Use Units identified in Section IV.F of this Facility Report or in Granulation. Following commencement of operations of the Acid Value Recovery System, if SACS, NHACS, Process Wastewater, Phosphogypsum Stack System Wastewater, or Acid Value

[1] This is only for incidental spills and leaks of sulfuric acid in the phosphoric acid manufacturing area. In the phosphoric acid manufacturing area, the infrastructure is set up to manage phosphoric acid materials. For other spills and leaks of sulfuric acid, where they can be segregated, the acid will be recovered for use or managed according to RCRA Requirements.

Recovery System effluent are used to clean SPA Recovery Units, or Acid Value Recovery System Units, then the materials from these units may be input to the Acid Value Recovery System for use in Upstream Operations in accordance with Section VI (Compliance Projects).

b. Acid Value Recovery Tank(s)

Influents to the Acid Value Recovery Tank(s) are limited to the following: (i) cleaning wastes or other materials generated from the use of SACS, FSA, NHACS, Phosphogypsum Stack System Wastewater, Process Wastewater, and Acid Value Recovery System effluent; (ii) materials from SPA Recovery Units; (iii) spills and leaks per 1.c above; and (iv) sulfuric acid for SACS make-up. Acid Value Recovery Tank(s) operation is described in Section VI.A.2. Project Operations of this Facility Report. Acid Value Recovery Tank(s) Effluent may be input to Upstream Operations or used for cleaning of the Acid Value Recovery System Units and returned to the Acid Value Recovery System. The Acid Value Recovery Tank(s) itself is designated as an Acid Value Recovery System Unit, and therefore for materials generated from cleaning the Acid Value Recovery Tank(s) itself, see 2.a above.

c. Process Upsets

In the event of a process upset that prevents the recovery of cleaning solutions via the Acid Value Recovery System, then Simplot (1) must not discharge to the Phosphogypsum Stack System any SACS or Acid Value Recovery System effluent used in cleaning those units affected by the process upset; and (2) must make a RCRA hazardous waste determination of any cleaning wastes or other materials generated from Acid Value Recovery System Units and/or SPA Recovery Units, and if the wastes are hazardous, then Simplot shall manage such wastes in accordance with RCRA Requirements.

3. Materials Generated from Granulation Recovery System Units and Tank(s)

a. Granulation Recovery System Units

If SACS, NHACS, Process Wastewater, Phosphogypsum Stack System Wastewater, or Granulation Recovery System effluent are used to clean Granulation Recovery System Units, then the cleaning wastes or other materials from these units may be input to the Granulation Recovery System for use in Downstream Operations in accordance with Section VI (Compliance Projects). If the cleaning wastes or other materials are non-hazardous, then these wastes or other materials can be sent to the Phosphogypsum Stack.

b. Granulation Recovery Tank(s)

Influents to the Granulation recovery tank(s) ("Granulation Recovery Tanks") are limited to the following: (i) Phosphogypsum Stack System Wastewater, Process Wastewater, NHACS, SACS, and Granulation Recovery System effluent; and (ii) spills and leaks of phosphoric acid, sulfuric acid[2], SACS, or Granulation Recovery System effluent in Containable Impervious Areas. Granulation Recovery Tank(s) operation as described in Section VI (Compliance Projects) and Section VI.B.2 Project Operations of this Facility Report. The Granulation Recovery Tank(s) itself is designated as a Granulation Recovery System Unit, and therefore for cleaning wastes or other materials generated from cleaning the Granulation Recovery Tank(s) itself, see 3.a above.

c. Process Upsets

In the event of a process upset that prevents the recovery of cleaning solutions via the Granulation Recovery System, then Simplot must make a hazardous waste determination of cleaning wastes or other materials generated from those units affected by the process upset, and if the wastes are hazardous, then Simplot shall manage the wastes in accordance with RCRA Requirements.

4. Materials Generated from Downstream Operations Only

If materials from Downstream Operations are not sent to the Granulation Recovery System or Acid Value Recovery System for recovery and reuse, then a hazardous waste determination will be made, and if the wastes are hazardous, then Simplot shall manage the wastes in accordance with RCRA Requirements.

[2] This is only for incidental spills and leaks of sulfuric acid in the Granulation manufacturing area. In the Granulation manufacturing area, the infrastructure is set up to manage phosphoric acid and ammonium phosphate materials. For other spills and leaks of sulfuric acid, where they can be segregated, the acid will be recovered for use or managed according to RCRA Requirements.

II. Background[3]

Simplot's Rock Springs Facility ("Facility") produces both liquid and granular fertilizer products. 69% phosphoric acid (commonly known as Super Phosphoric Acid or "SPA") and fluorosilicic acid ("FSA") are produced as liquid products. Both MAP and 40 Rock™ granular products are manufactured in a single production train designated as Granulation. Ammonia and phosphoric acid are the primary reactants for MAP and 40 Rock™ and are consumed in the production of ammoniated fertilizers on-site. Commercial FSA is produced from process condensate generated in the phosphoric evaporation areas.

Phosphoric acid is produced by the reaction of phosphate rock with sulfuric acid in two isothermal reactors. The reaction yields phosphoric acid and Phosphogypsum. Phosphogypsum is filtered from the phosphoric acid on three filter tables, slurried with Process Wastewater in three gypsum slurry tanks and the resultant slurry is pumped to the lined Phosphogypsum Stack System. Because the production of phosphoric acid is a water-intensive process and water is used throughout the process (e.g., as acid dilution, evaporators, condensers, and as a pipe and tank cleaning agent), approximately 120 million to 170 million gallons of Process Wastewater are constantly stored in and circulating throughout the Facility's Phosphogypsum Stack System and the phosphoric acid production process.

The Phosphogypsum Stack and Process Wastewater Return Pond are lined with a synthetic 16 oz. non-woven polypropylene geotextile and a 60 to 80 mil high density polyethylene liner over that. The Facility is not authorized to discharge any process water to the environment under environmental permits.

[3] This Background Section is provided solely for informative purposes and is not a definitive or exhaustive description of the Facility or its operations.

III. Products at Simplot Rock Springs

The Facility manufactures phosphoric acid, which can be used to make both granular and liquid fertilizer products. Three primary concentrations of phosphoric acid, as described below, are used to produce: MAP, 40 Rock, 16-20-0, or liquid fertilizer products:

- 28% phosphoric acid is routed to MAP, 40 Rock, or 16-20-0 production and to further concentration steps;
- 44% phosphoric acid is routed to MAP, 40 Rock, or 16-20-0 production, and to further concentration steps;
- 54% clarified phosphoric acid (greater than 1% solids) can be routed to either MAP, 40 Rock, or 16-20-0. 54% phosphoric acid can be evaporated to a 69% phosphoric acid, or SPA. 54% clarified phosphoric acid (greater than 1% solids) can also be sold directly as MGA.

The Facility also produces FSA.

IV. Phosphoric Acid, FSA, and SPA Production – Phosphoric Acid Plant

The Facility's phosphoric acid plant ("Phosphoric Acid Plant") consists of three filtration buildings, three evaporation buildings, and four clarification and storage areas. One of the filtration buildings, one evaporation building, one clarification area, and two storage areas have a synthetic lining system under the concrete consisting of a 60-mil high density polyethylene liner. The production area is mostly contained with concrete curbing, a concrete containment ditch, and a below-grade high density polyethylene lining system to collect runoff and any incidental spills that may occur The associated sumps in all of the areas are made of reinforced concrete with a synthetic lining system composed of high density polyethylene, polypropylene, or stainless steel. All of the Process Wastewater flows are collected and transferred to the Phosphogypsum Stack System via high density polyethylene lines at a combined flow rate of about 11,000 gallons per minute.

The FSA production area is fed concentrated process condensate primarily from the D and E evaporator circuits with some from C evaporator. Most of the FSA production area has a synthetic lining system under the concrete consisting of a 60 mil high density polyethylene liner. The FSA production area is mostly contained with concrete curbing. There is one sump made of reinforced concrete with a stainless steel lining system composed of high density polyethylene.

A. Standard Acid Flow Configuration

The Phosphoric Acid Plant produces four concentrations of phosphoric acid for use in fertilizer manufacturing: 28% P_2O_5[4], 44% P_2O_5, 54% P_2O_5, 69% P_2O_5[5]. Figure 3 shows the overall production process at the Facility. Deviations from the standard acid flow configuration are necessary on periodic short-term intervals.

The Facility produces phosphoric acid in two reactors designated as #1 Reactor and #2 Reactor. The acid from both reactors mixes at the 28% Clarifiers (MF-1501, MF-1503). Prior to mixing at the 28% Clarifier(s) (MF-1501, MF-1503), the acid flow is as follows:

[4] All concentrations of P_2O_5 are approximate and fluctuate slightly.

[5] Note that although the terms P_2O_5 and phosphoric acid (H_3PO_4) are used interchangeably, the concentrations are not interchangeable. Simplot manufactures phosphoric acid; however, in this document, we refer to the concentration of the acid in terms of P_2O_5 concentration, rather than phosphoric acid concentration. P_2O_5 concentration can be converted to an approximate concentration of phosphoric acid by multiplying by 1.3808. Phosphoric acid is converted to an approximate concentration of P_2O_5 by multiplying by 0.7242.

#1 Reactor:

Post-reactor, unclarified 28% acid overflows to the #1 Filter Feed Tank (MF-1203) and then pumped through the #1 Filter Table (GF-1301) to the #1 Filter #1 Filtrate Box (MS-1308) and/or through the #2 Filter Table (GF-6301) to the #2 Filter #1 Filtrate Box (MS-6308) then to the 28% clarifier(s) (MF-1501, MF-1503).

#2 Reactor:

Post-reactor, unclarified 28% acid overflows to the #2 Filter Feed Tank (MF-1253) and then through the #1 Filter Table (GF-1301) to the #1 Filter #1 Filtrate Box (MS-1308) and/or through the #2 Filter Table (GF-6301) to the #2 Filter #1 Filtrate Box (MS-6308) and/or through the #3 Filter Table (GF-6351) to the #3 Filter #1 Filtrate Pump Box (MS-6358) then to the 28% clarifier(s) (MF-1501, MF-1503).

1. 28% Acid Processed to 28% Clarification

   - 28% acid from the filter table(s) (GF-1301, GF-6301, GF-6351) is pumped to the #1 28% Clarifier and the #2 28% Clarifier (MF-1501, MF-1503).

   - Underflow (solids) from both of the 28% clarifier(s) (MF-1501, MF-1503) are pumped to the #1 filter section of the filter table(s) (GF-1301, GF-6301, GF-6351) for acid recovery.

   - Overflow (clarified acid) from #1 28% Clarifier (MF-1501) is gravity-fed to 28% Storage Tank (MF-1502) and/or #2 28% Storage Tank (MF-1514). Overflow (clarified acid) from the #2 28% Clarifier (MF-1503) is gravity-fed to the #3 28% Storage Tank (MF-1504).

2. Clarified 28% Acid Processed to 44% Clarification

   - A, B, D, and/or E evaporator(s) (GE-1402A, GE-1402B, GE-6401, GE-1450) are fed from the 28% storage tank(s) (MF-1502, MF-1504, MF-1514). The 28% storage tank(s) also feed 28% acid to Granulation.

   - 44% acid from A, B, D, and/or E evaporator(s) (GE-1402A, GE-1402B, GE-6401, GE-1450) is pumped to the 44% Clarifier (MF-6551).

   - Underflow from the 44% Clarifier (MF-6551) is pumped either to the 28% clarifier(s) (MF-1501, MF- 1503), to the 44%/54% Sludge Tank (MF-6508), or to the Pre-Mix Tank (MF-1509).

- Overflow (clarified 44% acid) is gravity-fed from the 44% Clarifier (MF-6551) to the 44% Storage Tank (MF-6552).

3. Clarified 44% Acid Processed to 54% Clarification or Feedstock to Granulation

    - From the 44% Storage Tank (MF-6552) via the 44% Transfer Line(s), 44% acid is pumped to D Evaporator (GE-6401) and/or E Evaporator (GE-1450) for concentration to 54% acid; and/or is pumped to Granulation via the 44% Transfer Line(s) to #1, #2, #3, or #4 Granulation Acid Feed Line(s).
    - Acid from the 44% Storage Tank (MF-6552) via the 44% Transfer Line(s) is also used to fill evaporators A, B, D, and E (GE-1402A, GE-1402B, GE-6401, GE-1450) for startup for 44% evaporation service, and can also be sent to C evaporator (GE-2701) for evaporation to 69% acid.
    - Concentrated 54% acid is pumped from D Evaporator (GE-6401) and/or E Evaporator (GE-1450) to the 54% Clarifier (MF-6503).
    - Underflow (solids) from the 54% Clarifier (MF-6503) is pumped to the 28% clarifier(s) (MF-1501, MF- 1503), to the 44%/54% Sludge Tank (MF-6508), or to the Pre-Mix Tank (MF-1509).
    - Overflow (clarified 54% acid) from the 54% Clarifier (MF-6503) is gravity-fed to the 54% Storage Tank (MF-6504).

4. 54% Storage Tank (MF-6504) to 54% Acid Users via 54% Transfer Line(s)

    - 54% acid is pumped to Granulation via the 54% Transfer Line(s) to #1, #2, #3, or #4 Granulation Acid Feed Line(s).
    - 54% acid is pumped to C Evaporator (GE-2701) for further evaporation to 69% acid.
    - 54% acid is pumped to the 54% Shipping Clarifier (MF-1507) via 54% Transfer Line(s).
    - 54% acid is used to fill D Evaporator (GE-6401) and/or E Evaporator (GE-1450) for startup for 54% acid service via the 54% Transfer Line(s).

5. 54% Shipping Clarifier

   - Overflow (clarified 54% acid) from the 54% Shipping Clarifier (MF-1507) is gravity-fed to the 54% Shipping Storage Tank (MF-2503).

   - Underflow from the 54% Shipping Clarifier (MF-1507) is pumped to the Pre-Mix Tank (MF-1509). Underflow can be pumped to the 28% Clarifier (MF-1501).

6. 54% Shipping Storage Tank

   - Provides 54% acid to rail car and truck load out facilities for shipment or to the Granulation plant for dry product production.

7. 44%/54% Sludge Tank (MF-6508) and/or Pre-Mix Tank (MF-1509)

   - Solids from 44%/54% Sludge Tank (MF-6508) are pumped to either the 28% clarifier(s) (MF-1501, MF- 1503), the Pre-Mix Tank (MF-1509), Granulation Mix Tank (MF-1621), or Granulation Feed Tank (MF-1610).

   - Solids from Pre-Mix Tank (MF-1509) are pumped to either the 28% clarifier(s) (MF-1501, MF- 1503), Granulation Mix Tank (MF-1621), or Granulation Feed Tank (MF-1610).

B. Alternate Acid Flow Configuration

Note: The Facility has the capability to route around all clarifiers and storage tanks within the phosphoric acid process on a temporary basis, except for the following Upstream Operations units:

- #1 or #2 Reactor
- Filter Table(s)
- Gypsum Slurry Tank(s)
- Evaporator(s) A, B, D, or E

When cleaning the 44% clarifier and/or associated storage tanks, the #2 28% clarifier and #3 28% storage tank are converted from 28% acid service to 44% acid clarification and storage. Similarly, when cleaning the 54% clarifier and/or 54% storage tank, the 44% clarifier and storage are converted to 54% service.

C. Phosphoric Acid Transfer to SPA and Downstream Operations

1. Acid Transfer between the Phosphoric Acid Plant and Granulation

The Facility has four primary transfer lines that serve to transport clarified 28%, 44% and/or 54% phosphoric acid from the Phosphoric Acid Plant to the Granulation plant ("Granulation Plant"). The #1, #2, #3, and/or #4 Granulation Acid Feed Line(s) transport 44% and/or 54% acid from the 44% Transfer Line(s) and/or from the 54% Transfer Line(s) to various locations in the Granulation process.

All transfer lines described above are cleaned with cleaning solution to remove precipitated solids and scale to maintain acceptable pressure levels and acid flow rates. The locations of the transfer lines are illustrated in Figure 6. The estimated line lengths and cleaning frequencies are listed in Table 1.

2. Sludge Transfer between the Phosphoric Acid Plant and Granulation

The Facility has two primary transfer lines that serve to transport phosphoric acid sludge streams from the Phosphoric Acid Plant to the Granulation Plant The 44%/54% Sludge Line transports sludge from the 44%/54% Sludge Tank (MF-6508) to the Pre-Mix Tank (MF-1509). The Mixed Sludge Line transports sludge from the Pre-Mix Tank (MF-1509) to the Granulation Plant. The Pre-Mix Tank (MF-1509) can be bypassed sending sludge directly from the 44%/54% Sludge Tank (MF-1509) to the Granulation Mix Tank (MF-1621) and/or Granulation Feed Tank (MF-1610).

All transfer lines described above are cleaned with cleaning solution to remove precipitated solids and scale to maintain acceptable pressure levels and acid flow rates. The locations of the transfer lines are illustrated in Figure 7. The estimated line lengths and cleaning frequencies are listed in Table 2.

3. Acid Transfer between the Phosphoric Acid Plant and C Evaporator

The Facility has two primary transfer lines that serve to transport 54% phosphoric acid from the Phosphoric Acid Plant to C Evaporator. The 54% Transfer Line(s) transport 54% acid from the 54% Storage Tank (MF-6504) to the C Evaporator Feed Line and C Evaporator Feed Line transports 44%/54% into the C Evaporator.

The Facility has two primary transfer lines that serve to transport 44% phosphoric acid from the Phosphoric Acid Plant to C Evaporator. The 44% Transfer Line(s) transport 44% acid from the 44% Storage Tank (MF-6552) to the C Evaporator Feed Line and C Evaporator Feed Line transports 44%/54% into the C Evaporator.

All transfer lines described above are cleaned with cleaning solution to remove precipitated solids and scale to maintain acceptable pressure levels and acid flow rates. The locations of the transfer lines are illustrated in Figure 8. The estimated line lengths and cleaning frequencies are listed in Table 3.

4. Acid Transfer between the Phosphoric Acid Plant and Truck and Rail Load Out

The Facility has one primary transfer line that serves to transport clarified 54% phosphoric acid from the Phosphoric Acid Plant to the truck and rail load out area. The 54% Transfer to Acid Load Out Line transports 54% acid from the 54% Shipping Storage Tank to the truck and rail load out area for acid load out.

All transfer lines described above are cleaned with cleaning solution to remove precipitated solids and scale to maintain acceptable pressure levels and acid flow rates. The locations of the transfer lines are illustrated in Figure 9. The estimated line lengths and cleaning frequencies are listed in Table 4.

D. Railcar Cleaning Operations

The Facility washes phosphoric acid railcars using a circulating wash loop from the Car Wash Sump (MF-2504) to the railcar and back to the Car Wash Sump. A non-hazardous aqueous solution is used as make-up water into the Car Wash Sump. When the sump level or wash solution quality requires, the wash material is pumped to the 28% Clarifier (MF-1501) for recovery.

E. FSA Standard Process Configuration

The Facility recovers fluoride vapors from C, D, and E Evaporators. The recovery of fluoride vapors produces process condensate containing fluorides. The FSA production systems produce FSA product with an acid strength of 23- 25% H_2SiF_6 and is typically used by municipalities as a water fluoridation chemical. Process condensate within the D and E evaporation circuits are concentrated with C Evaporator Process Condensate utilized as makeup into these circuits. Once the concentration of the process condensate reaches the desired strength, the process condensate is sent to clarifiers to remove solids. The clarified FSA is pumped through a final cartridge filter element to remove any remaining solids to produce a clear product FSA. The FSA process diagram is shown in Figure 5 and the process steps described below.

1. Process condensate from C, D, and/or E evaporation circuits

- C Evaporator Process Condensate is pumped to E Evaporator FSA Recirculation Tank (MS-1456), D Evaporator Secondary FSA

Recirculation Tank (MS-6416), and/or D Evaporator Hotwell (MS-6408) for makeup into the scrubbing systems.

- Process vapor containing fluoride from the D Evaporator is scrubbed with a series of sprays within the vapor duct and by the D Evaporator Fluoride Recovery Tower (MF-6404).

- The sprays are supplied from the D Evaporator FSA Recirculation Tank (MS-6406) and the fluoride rich solution from the sprays is collected in the same tank. The solution sent to the recovery tower is supplied from the D Evaporator Secondary FSA Recirculation Tank (MS-6416) and the solution from the recovery tower is collected in this same tank.

- The solutions are recirculated and additional fluoride is recovered in the process condensate. Concentrations within the process condensate are monitored with density meters and controlled by blowing down from the recirculated system and making up with C Evaporator process condensate and/or a non-hazardous aqueous solution.

- Blowdown from the D Evaporator Secondary FSA Recirculation Tank (MS-6416) is routed as makeup to the D Evaporator FSA Recirculation Tank (MS-6406).

- Process vapor containing fluoride from the E Evaporator is captured with a series of sprays within the vapor duct and by the E Evaporator Fluoride Recovery Tower (MF-1451).

- The E Evaporator sprays and tower are supplied from the E Evaporator FSA Recirculation Tank (MS-1456) and the fluoride rich solution from the E Evaporator spray/tower system is collected in the E Evaporator FSA Recirculation Tank (MS-1456).

- The solutions are recirculated and additional fluoride is recovered in the process condensate. Concentrations within the process condensate are monitored with density meters and controlled by blowing down from the recirculated system and making up with C Evaporator process condensate and/or a nonhazardous aqueous solution.

- Blowdown of process condensate from the D Evaporator FSA Recirculation Tank (MS-6406) and the E Evaporator FSA Recirculation Tank (MS-1456) is routed to D Evaporator Acid Sump

(J-6401) when FSA is not being produced (Process Wastewater) or to the FSA Settling Tanks (MS-6701, MS-6702, MS-6703) when FSA is being produced (FSA is "produced" once enters the transfer line to the FSA settling tanks).

2. Filter solids from concentrated FSA and pump to storage

- Once the solids suspended in the FSA are allowed to settle in the FSA Settling Tanks (MS-6701, MS-6702, MS-6703), the clarified FSA is pumped through FSA polishing filters (GF-6701, GF-6702), which provide a final filtration stage for the FSA prior to collection in the FSA Storage Tank (MF-6701).

- The clarified and filtered FSA is transferred to the FSA Storage Tank (MF-6701) as a finished product. From the FSA Storage Tank, railcars or trucks are loaded from the FSA load out pumps (PP-6702A, PP-6702B).

The Facility has one primary transfer line, FSA Shipping Line, that serves to transport FSA between the FSA storage tanks and the rail and truck load out area. The location of the transfer line is illustrated in Figure 10. The line designation and cleaning frequency is listed in Table 5.

F. 69% Acid - SPA Standard Process Configuration

The SPA process described below is illustrated in Figure 4.

C Evaporator (GE-2701) is utilized to further concentrate 44% or 54% acid to 69% acid. After evaporation, the 69% acid is aged and filtered to produce SPA product. The acid flow is as follows:

1. 44%/54% processed to 69%

- From the 54% Storage Tank (MF-6504), 54% acid is pumped to the C Evaporator (GE-2701) or from the 44% Storage Tank (MF-6552), 44% acid is pumped to the C Evaporator (GE-2701) for concentration to 69% acid.

- 69% acid overflows from C Evaporator into the C Evaporator Cooler Tank (MS-2711). The 69% acid is pumped through the SPA Product Cooler (TT-2703), a shell and tube heat exchanger. Once cooled it proceeds to the aging tanks.

2. 69% acid aging and filtration

    - There are 3 aging tanks that are run in series and are labeled #1 Aging Tank (MF-2788), #2 Aging Tank (MF-2773), and #3 Aging Tank (MF-2751). The phosphoric acid is allowed to 'age' by slow cooling and slight agitation which crystallizes impurities in the 69% acid by post-precipitation.

    - From the #3 Aging Tank (MF-2751), the 69% acid passes through a second cooler, the Filter Feed Cooler (TT-2771), and proceeds to the Filter Feed Tank (MS-2771).

    - The solids that were precipitated out in the aging tanks are removed in the SPA Filter Press (GF- 2784).

    - The solids filtered out of the 69% acid with the SPA Filter Press are removed from the filter cloths and collected in the SPA Re-Pulp Sump (GS-2787). The solids still contain approximately 50% P_2O_5 value, and are mixed with a non-hazardous aqueous solution, Process Wastewater, and/or SPA Recovery Unit effluent, to suspend the solids into a pumpable slurry.

    - The re-pulp sump slurry is pumped to the SPA Sludge Tank (MF-2754). This tank stores the phosphate rich slurry and is pumped to the Granulation Mix Tank (MF-1621), Granulation Feed Tank (MF-1610), Pre-Mix Tank (MF-1509), the 44%/54% Sludge Tank (MF-6508), #2 Filter Feed Tank (MF-1253), and/or to the #1, #2, and/or # 3 Filter Tables for recovery.

3. SPA Product to Storage and Shipment

    - The filtered 69% acid is sent to the SPA Filtrate Receiver Tank (MS-2758). Final polishing of the acid occurs in the Filtrate Receiver Tank (MS-2758)

    - The finished SPA product is transferred to two storage tanks, the A and B SPA Shipping Tanks (MF-2759A, MF-2759B). Each tank has an internal steam heater to maintain SPA shipping temperatures about 190F.

    - From the A and B Shipping Tanks (MF-2759A, MF-2759B), SPA product is loaded into railcars.

G. Alternate SPA Flow Configuration

Note: The Facility has the capability to route around all tanks and equipment within the SPA process on a temporary basis, except for the following units:

- C Evaporator
- SPA Filter Feed Tank
- SPA Filter Press
- SPA Re-pulp Sump
- SPA Sludge Tank
- SPA Filtrate Receiver Tank

V. Configuration Equipment Designations

A. Upstream Operations Units

The following processes, tanks, and associated equipment used in the production, concentration, transport, and storage of 28% and 44% phosphoric acid, and the concentration of 44% phosphoric acid to 54% phosphoric acid, serve only Upstream Operations:

1. Tanks

a. Reaction System

i. #1 Reactor (MR-1202)

ii. #1 Reactor Seal Water Tank (MS-1218)

iii. #1 Reactor Filter Feed Tank (MF-1203)

iv. #1 Reactor Vacuum System (MF-1208, MS-1205, PE-1204, MS-1206, PV-1205)

v. #2 Reactor (MR-1252)

vi. #2 Reactor Filter Feed Tank (MF-1253)

vii. #2 Reactor Vacuum System (MS-1258, MS-1255, PE-1254, MS-1256, PV-1255)

b. Filtration System

i. #1 Filter Table (GF-1301)

ii. #1 Filter Filtrate Separator (MS-1301)

iii. #1 Filter #1 Filtrate Box (MS-1308)

iv. #1 Filter #2 Filtrate Box (MS-1309)

v. #1 Filter Table Acid Trap Tank (MS-1305)

vi. #1 Filter Gypsum Slurry Tank (MS-1303)

vii. #1 Filter Wash Water Tank (MS-1307)

viii. #1 Filter Vacuum System (GK-1302, MS-1302, PV-1302)

ix. Wash Water Heater (TT-1303)

x. #2 Filter Table (GF-6301)

xi. #2 Filter Filtrate Separator (MS-6301)

xii. #2 Filter #1 Filtrate Box (MS-6308)

xiii. #2 Filter #2 Filtrate Box (MS-6309)

xiv. #2 Filter Separator Seal Tank (MS-6310)

xv. #2 Filter Gypsum Slurry Tank (MS-6303)

xvi. #2 Filter Wash Water Tank (MS-6307)

xvii. #2 Filter Wash Water Heater (TT-6303)

xviii. #2 Filter Vacuum System (GK-6302, MS-6302, PV-6302)

xix. #3 Filter Table (GF-6351)

xx. #3 Filter Filtrate Separator (MS-6351)

xxi. #3 Filter #1 Filtrate Pump Box (MS-6358)

xxii. #3 Filter #2 Filtrate Pump Box (MS-6359)

xxiii. #3 Filter Separator Seal Tank (MS-6350)

xxiv. #3 Filter Gypsum Slurry Tank (MS-6353)

xxv. #3 Filter Wash Water Tank (MS-6357)

xxvi. #3 Filter Vacuum System (GK-6352, MS-6352, PV-6355)

xxvii. Blend Tank (MF-1251)

c. Clarification and Storage of 28% Phosphoric Acid

i. 28% Clarifier (MF-1501)

ii. #2 28% Clarifier (MF-1503)

iii. 28% Storage Tank (MF-1502)

iv. #2 28% Storage Tank (MF-1514)

v. #3 28% Storage Tank (MF-1504)

vi. #1 28% Clarifier Wash Box (MS-1505)

vii. #2 28% Clarifier Wash Box (MS-1506)

d. Concentration of 28% Phosphoric Acid to 44% Phosphoric Acid

i. A Evaporator (GE-1402A)

ii. A Evaporator Heat Exchanger (TT-1401)

iii. A Evaporator Barometric Condenser (PE-1409A)

iv. A Evaporator Ejector System (PE-1410A, PE-1411A, PE-1412A)

v. B Evaporator (GE-1402B)

vi. B Evaporator Heat Exchanger (TT-1402)

vii. B Evaporator Barometric Condenser (PE-1409B)

viii. B Evaporator Ejector System (PE-1410B, PE-1411B, PE-1412B)

ix. A/B Evaporator Condenser Hotwell (MS-1408)

x. Cooling Water Sump (MT-1308)

e. Clarification of 44% Phosphoric Acid

i. 44% Clarifier Tank (MF-6551)

ii. 44% Clarifier Wash Box (MS-6553)

f. Concentration of 44% Phosphoric Acid to 54% Phosphoric Acid

i. D Evaporator (GE-6401)

ii. D Evaporator Heat Exchanger (TT-6401)

iii. D Evaporator Barometric Condenser (PE-6409)

iv. D Evaporator Ejector System (PE-6410, PE-6411, PE-6412)

v. D Evaporator Hotwell (MS-6408)

vi. D Evaporator Condenser Water Heat Exchanger (TT-6404)

vii. D Evaporator Fluoride Recovery Tower (MF-6404)

viii. D Evaporator FSA Recirculation Tank (MS-6406)

ix. D Evaporator Secondary FSA Recirculation Tank (MS-6416)

x. E Evaporator (GE-1450)

xi. E Evaporator Heat Exchanger (TT-1451)

xii. E Evaporator Barometric Condenser (PE-1459)

xiii. E Evaporator Ejector System (PE-1451, PE-1452, PE-1453)

xiv. E Evaporator Hotwell (MS-1458)

xv. E Evaporator Fluoride Recovery Tower (MF-1451)

xvi. E Evaporator FSA Recirculation Tank (MS-1456)

g. Clarification of 54% Phosphoric Acid

i. 54% Clarifier Tank (MF-6503)

ii. 54% Clarifier Wash Box (MS-6506)

2. Transfer Lines

All lines connecting the equipment listed above are considered Upstream Operations.

3. Air Pollution Control Devices (APCD)

a. C Fume Scrubber System

The C Fume Scrubber System circulates process water to scrub fumes from specific units within the phosphoric acid process ("Phosphoric Acid Process") and the FSA process ("FSA Process"). Make-up to the system is provided by tailings water or D Cooling Pond Water. Blowdown from the system is sent to the Phosphogypsum Stack System or sent to the Badger Fume Scrubber System as make-up.

The following equipment comprises the C Fume Scrubber System:

i. Fume Scrubber C with Separator (GK-6304)

ii. Fume Scrubber C Seal Tank (MS-6304)

iii. Fume Scrubber Fan C (PB-6306)

iv. Fume Stack C (HC-6301)

v. FSR Sump (J-6301)

The C Fume Scrubber System evacuates fumes from the following processes, tanks, and associated equipment in the Phosphoric Acid Plant:

Name	Asset #	Designation
#2 Filter Table	GF-6301	Upstream
FSR Water Collection Sump	J-6301	APCD System
#2 Acid Sump	J-6302	Upstream
D/E Evaporator Sump	J-6401	Upstream
E Evaporator FSA Recirculation Tank	MS-1456	Upstream
E Evaporator Hotwell	MS-1458	Upstream
#2 Filter Vacuum Scrubber Seal Tank	MS-6302	Upstream
#2 Filter Gypsum Slurry Tank	MS-6303	Upstream
Fume Scrubber C Seal Tank	MS-6304	APCD System
#2 Filter Wash Water Tank	MS-6307	Upstream
D Evaporator FSA Recirculation Tank	MS-6406	Upstream
D Evaporator Hotwell	MS-6408	Upstream
D Evaporator Secondary FSA Recirculation Tank	MS-6416	Upstream

B. Mixed-Use Units

The following processes, tanks, and associated equipment in the Phosphoric Acid Plant are Mixed-Use Units:

1. Tanks

   a. 44% Storage Tank (MF-6552)

   b. 54% Storage Tank (MF-6504)

   c. 54% Shipping Clarifier (MF-1507)

   d. Sludge Pre-Mix Tank (MF-1509)

   e. 44% / 54% Sludge Tank (MF-6508)

2. Transfer Lines

   a. 44% Transfer Line(s)

   b. 54% Transfer Line(s)

   c. 44%/54% Sludge Line

3. Air Pollution Control Devices (APCD)

   a. Badger Fume Scrubber System

   The Badger Fume Scrubber System circulates process water to scrub fumes from specific units within the Phosphoric Acid Process, the FSA Process, and the SPA process (“SPA Process”). Make-up to the system is provided by blowdown from the Mustang FSR Sump (J-6301). Blowdown from the system is sent to the Phosphogypsum Stack System or re-used in the Phosphoric Acid Process.

The following equipment comprises the Badger Fume Scrubber System:

i. Fume Scrubber A with Separator (GK-1304A)

ii. Fume Scrubber Seal Tank (MS-1304)

iii. Fume Scrubber Fan A (PB-1306A)

iv. Fume Stack A (HC-1301A)

i. Fume Scrubber B with Separator (GK-1304B)

ii. Fume Scrubber Fan B (PB-1306B)

iii. Fume Stack B (HC-1301B)

iv. FSR Sump (J-1319)

The Badger Fume Scrubber System evacuates fumes from the following processes, tanks, and associated equipment in the Phosphoric Acid Plant:

Name	Asset #	Designation
#1 Filter Table	GF-1301	Upstream
FSR Sump	J-1319	APCD System
Blend Tank	MF-1251	Upstream
#2 Reactor Filter Feed Tank	MF-1253	Upstream
28% Clarifier	MF-1501	Upstream
28% Storage Tank	MF-1502	Upstream
#2 28% Clarifier	MF-1503	Upstream
#3 28% Storage Tank	MF-1504	Upstream
54% Shipping Clarifier	MF-1507	Mixed-Use
Sludge Pre-Mix Tank	MF-1509	Mixed-Use
#2 28% Storage Tank	MF-1514	Upstream
54% Shipping Tank	MF-2503	Downstream
Reactor FSA Circulation Tank	MS-1205	Upstream
#1 Reactor Hot Well	MS-1206	Upstream
#1 Reactor Seal Water Tank	MS-1218	Upstream
#1 Filter Gypsum Slurry Tank	MS-1303	Upstream
#1 Filter Wash Water Tank	MS-1307	Upstream
Tank Farm Collection Tank	MS-1517	Upstream
A/B Evaporator Hotwell	MS-1408	Upstream
FSA Recirculation Tank	MS-1409	Upstream
#2 28% Clarifier Wash Box	MS-1506	Upstream
Wash Box	MS-1510	Upstream
Sludge Pre Mix Tank Wash Box	MS-1512	Mixed-Use
C FSA Recirculation Tank	MS-2706	SPA

Name	Asset #	Designation
C Evaporator Cooler Tank	MS-2711	SPA
SPA Shipping Tank A	MS-2759A	SPA
SPA Shipping Tank B	MS-2759B	SPA
#1 Acid Sump	MT-1311	Upstream
C Evaporator Barometric Sump	MT-2703	SPA

b. D Fume Scrubber System

The D Fume Scrubber System circulates process water to scrub fumes from specific units within the Phosphoric Acid Process and the FSA Process. Make-up to the system is provided by tailings water or D Cooling Pond Water. Blowdown from the system is sent to the Phosphogypsum Stack System or sent to the Badger Fume Scrubber System as make-up.

The following equipment comprises the D Fume Scrubber System:

i. Fume Scrubber with Separator (GK-6354)

ii. Fume Scrubber Seal Tank (MS-6354)

iii. Fume Scrubber Fan (PB-6356)

iv. Fume Stack C (HC-6301)

v. FSR Sump (J-6301)

The D Fume Scrubber System evacuates fumes from the following processes, tanks, and associated equipment in the Phosphoric Acid Plant:

Name	Asset #	Designation
#3 Filter	GF-6351	Upstream
#2 Reactor Acid Sump	J-1251	Upstream
#3 Filter Acid Sump	J-6352	Upstream
#2 Tank Farm Sump	J-6501	Upstream
54% Clarifier	MF-6503	Upstream
54% Storage Tank	MF-6504	Mixed-Use
44% / 54% Sludge Tank	MF-6508	Upstream
44% Clarifier	MF-6551	Upstream
44% Storage Tank	MF-6552	Mixed-Use
#2 Reactor Pre-Condenser Hot Well	MS-1255	Upstream
#2 Reactor Hot Well	MS-1256	Upstream
Vacuum Pump Condenser Seal Tank	MS-6352	Upstream
#3 Filter Gypsum Slurry Tank	MS-6353	Upstream
#3 Filter Wash Water Tank	MS-6357	Upstream
54% Clarifier Wash Box	MS-6506	Upstream
Sludge Tank Wash Box	MS-6511	Upstream
44% Clarifier Wash Box	MS-6553	Upstream

C. SPA Recovery

The following units are associated with the SPA process. The cleaning wastes or other materials from these units will be managed in the Acid Value Recovery System and/or recovered directly in Granulation or other process units as described in Section IV.F.2 of this Facility Report. Two exceptions would be any material that is non-hazardous (such as C evaporator wash material) and the C Evaporator condensate, which will report to the Phosphogypsum Stack System through the phosphoric acid evaporator barometric condenser system.

1. Tanks and Equipment

a. C Evaporator System

i. C Evaporator (GE-2701)

ii. C Startup Tank (MS-2704)

iii. C Cooler Tank (MS-2711)

iv. SPA Product Cooler (TT-2703)

v. C Barometric Condenser System (PE-2714, PE-2706, TT-2708, PE-2722, PE-2705, PE-2707)

vi. C Fluoride Recovery Tower (MS-2705)

vii. C FSA Recirculation Tank (MS-2706)

b. #1 Aging Tank (MF-2788)

c. #2 Aging Tank (MF-2773)

d. #3 Aging Tank (MF-2751)

e. SPA Filter Feed Cooler (TT-2771)

f. SPA Filter Feed Tank (MS-2711)

g. SPA Filter (GF-2784)

h. SPA Re-Pulp Sump (GS-2787)

i. SPA Filtrate Receiver Tank (MS-2758)

j. SPA Shipping Tank A (MF-2759A)

k. SPA Shipping Tank B (MF-2759B)

2. Transfer Lines

    a. C Evaporator Feed Line

    b. Transfer lines from C Evaporator to C Cooler Tank

    c. Transfer lines from C Cooler Tank to SPA Product Cooler

    d. Transfer lines from SPA Product Cooler to SPA Aging Tanks

    e. Transfer lines from SPA Aging Tanks to SPA Filter Feed Cooler

    f. Transfer lines from SPA Filter Feed Cooler to SPA Filter Feed Tank

    g. Transfer lines from SPA Filter Feed Tank to SPA Filter

    h. Transfer lines from SPA Filter to SPA Filtrate Receiver Tank (MS-2758)

    i. Transfer lines from SPA Re-Pulp Sump to SPA Sludge Tank

D. Acid Value Recovery System Units

The following equipment, tanks, and acid transfer lines are identified as Acid Value Recovery Units.

Materials from Acid Value Recovery Units are recovered into Upstream Operations as designated in this Facility Report or to the Acid Value Recovery Tank(s) as described in Section VI (Compliance Projects (Projects 1 and 2)).

The Acid Value Recovery Tank(s) that Simplot will install in accordance with Section VI are also Acid Value Recovery System Units.

1. Tanks / Process Equipment

    a. 54% Shipping Storage Tank (MF-2503)

    b. SPA Sludge Tank (MF-2754)

    c. Granulation Mix Tank (MF-1621)

    d. Granulation Feed Tank (MF-1610)

    e. FSA System

        i. FSA Clarifier #1 (MS-6701)

        ii. FSA Clarifier #2 (MS-6702)

        iii. FSA Clarifier #3 (MS-6703)

iv. FSA Polishing Filter #1 (GF-6701)

v. FSA Polishing Filter #2 (GF-6702)

vi. FSA Storage Tank (MF-6701)

f. Upstream Recovery Units

i. Upstream Recovery Tank(s)

g. Liquid Shipping System

i. Rail Wash / Sump Equipment

2. Transfer Lines

a. #1, #2, #3, #4 Granulation Feed Line(s)

b. Mixed Sludge Line

c. Transfer lines from SPA Sludge Tank to Pre-Mix Tank (MF-1509), the 44%/54% Sludge Tank (MF-6508), #2 Reactor Filter Feed Tank (MF-1253), and to the #1, #2, and # 3 Filter Tables.

d. FSA System

i. Transfer lines from D Evaporator FSA Recirculation Tank (MS-6406, D Evaporator Secondary FSA Recirculation Tank (MS-6416), and E Evaporator FSA Recirculation Tank (MS-1456) to FSA Clarifiers

ii. Transfer lines from FSA Clarifiers to FSA Polishing Filters

iii. Transfer lines from FSA Polishing Filters to FSA Storage Tank

iv. Transfer lines from FSA Storage Tank to Load Out

e. Transfer lines from Upstream Recovery System Units to specific Upstream Units

E. Granulation

The Facility's Granulation process consists of two basic parts: (1) the wet side (e.g., reactor, acid scrubber system); and (2) the dry side (e.g., granulator, dryer).

MAP, 40 Rock, and 16-20-0 manufacturing operations are Downstream Operations; however, the units listed below are Acid Value Recovery Units in wet side service and as such may be recovered in the Acid Value Recovery System.

Cleaning wastes or other materials from the Acid Value Recovery System Units below are recovered into Upstream Operations and/or Granulation operations as designated in this Facility Report or to the Acid Value Recovery Tank itself as described in Section VI (Compliance Projects (Projects 1 and 2)).

1. Acid Value Recovery System Units

   a. Granulation Mix Tank (MF-1621)

   b. Granulation Feed Tank (MF-1610)

The above two pieces of equipment in the Granulation Plant may also be used as a backup Granulation recovery tank ("Granulation Recovery Tank") as needed. In this situation, the tank will be emptied of its contents and once in service as a Granulation Recovery Tank, the unit will operate in accordance with the Granulation Recovery Tank operation as described in Section VI (Compliance Projects). To return the unit to service as an Acid Value Recovery System Unit, the contents of the tank will be emptied and the tank will be cleaned before being fed its normal contents. After returning the unit to service as an Acid Value Recovery System Unit, cleaning wastes or other materials generated from these tanks will be handled as described in Section VI (Compliance Projects (Projects 1 & 2)).

The following pieces of equipment in the Granulation Plant are Granulation Recovery System Units. Cleaning wastes or other materials from Granulation Recovery System Units are recovered into the Granulation process as designated in this Facility Report or to the Granulation Recovery Tank itself as described in Section VI. Compliance Projects (Projects 3 and 4) of this Facility Report.

1. Granulation Recovery System Units

   a. Granulation Acid Scrubbers

   b. Granulation Reactor

   c. Granulator

   d. Dryer

   e. Cooler

   f. Elevators

   g. Screening and Milling Equipment

   h. Granulation Tail Gas Scrubbers

   i. Acid transfer lines from the Phosphoric Acid Feed Header to the Granulation Plant

j. Acid transfer lines from the Granulation Mix Tank and the Granulation Feed Tank to the Granulation Plant

VI. Compliance Projects

The projects described below are not all the projects listed in Appendix 6 (Compliance Schedule) to the Consent Decree but are the projects that are recovery related – the Acid Value Recovery System and the Granulation Recovery System. The time frames for completion of the projects are found in Appendix 6 (Compliance Schedule).

Projects 1 and 2 comprise a plan that will enable the Facility to clean Upstream Operations, Mixed-Use Units, SPA Recovery Units, and Acid Value Recovery System Units, and recover acid value from the cleaning wastes or other materials as described below.

Projects 3 and 4 are projects related to Granulation and recovery of materials in that process.

A. Acid Value Recovery System Related Projects

The Acid Value Recovery System will enable Simplot to recover the value of cleaning wastes or other materials from pipes, tanks, process equipment, or other storage or transport units that are identified as SPA Recovery Units or Acid Value Recovery System Units in this Facility Report. (See Diagram 1 for an overview of streams handled to and from the Acid Value Recovery Tank(s).) In accordance with Appendix 5.A, the Acid Value Recovery System will enable Simplot to recover spills and leaks in semi-segregable ("Semi-Segregable") and Containable Impervious Areas as described in Section VII: Containment of Phosphoric Acid Production Related Spills and Leaks of this Facility Report. The system will involve instrumentation and lines to allow the recovery of high acid content material from the Semi-Segregable Areas, as well as full recovery from Containable Impervious Areas.

1. Project Descriptions

<u>Project 1: Acid Value Recovery Tank and Wash Solution System in Phosphoric Acid Plant</u>

The Acid Value Recovery Tank and wash solution system project in the Phosphoric Acid Plant will install new tank(s), piping, and controls to enable Simplot to recover the value of cleaning wastes or other materials, as specified in Section VI.A.2 Project Operations below.

Simplot will install two new Acid Value Recovery Tanks for the Acid Value Recovery System. At any one time, one of the tanks may be used in Upstream Operations, Mixed-Use Unit, or other Acid Value Recovery Unit services when not operating as an Acid Value Recovery Tank. After use as an Acid Value Recovery Tank or other Acid Value Recovery Unit, and prior to placing the tank into Upstream Operations or Mixed-Use Unit service, the tank being placed into Upstream Operations or Mixed-Use Unit must be cleaned as an Acid Value Recovery Unit and any cleaning wastes managed accordingly, after which time, the tank will assume an Upstream Operations designation as defined in paragraph 9 of the Consent Decree. The Acid Value Recovery Tank backup tank(s) will be used during cleaning and/or maintenance of the Acid Value Recovery Tank. Cleaning wastes or other materials from the Acid Value Recovery Tank backup tank will be handled in the same way as the cleaning wastes or other materials from the Acid Value Recovery Tank itself as described in Section VI.A.2 (Project Operations) below.

In addition, new or upgraded pumps, motors, small pump tanks, and instrumentation may be needed to ensure the return of spills and leaks and cleaning wastes or other materials of: (1) phosphoric acid, sulfuric acid, FSA, SACS, SPA Recovery Unit effluent or Acid Value Recovery System effluent; or (2) NHACS, Process Wastewater, or Phosphogypsum Stack System Wastewater when mixed with any of the preceding solutions due to spills, leaks, or cleaning of leaks and spills to the Acid Value Recovery System. Project 1 necessarily coincides with Project 2 below.

Project 2: Recovery System Return Piping

Simplot will install new piping to enable: (1) cleaning of phosphoric acid lines that take materials from the Phosphoric Acid Plant and convey them to Granulation and SPA and then return those cleaning wastes or other materials to the Acid Value Recovery System; (2) cleaning of SPA Recovery Units and Acid Value Recovery Units and return those cleaning wastes or other materials to the Acid Value Recovery System and/or direct them to the Upstream Operations/Mixed-Use Unit operations set forth in VI.A.3 (Acid Value Recovery Options) below; (3) cleaning of the FSA System and return those cleaning wastes or other materials to the Acid Value Recovery System; (4) recovering SPA secondary solids (filter solids) and return those materials to the Acid Value Recovery System, to Upstream Operations/Mixed-Use Unit operations, or directly to Granulation operations; and (5) recovering high acid content material from Semi-Segregable sumps to the Acid Value Recovery Tank and/or to a phosphoric acid storage tank.

2. Project Operations

The Acid Value Recovery System will be comprised of the Acid Value Recovery Tank(s) along with pumps and piping to supply cleaning solution to units that are part of Upstream Operations, or identified as Mixed-Use Units, SPA Recovery Units, or Acid Value Recovery System Units and recover the cleaning wastes or other materials back to the Acid Value Recovery Tank or direct those wastes or other materials to Upstream Operations/Mixed-Use Unit operations that are considered part of the Acid Value Recovery System as described below.

Prior to cleaning, equipment will be emptied by recovering as much acid as possible back into the Phosphoric Acid, SPA, FSA, or Granulation production processes, which may include final acid draining by opening manways and flowing material across concrete pads to Semi-Segregable or Containable Impervious Sumps.

In accordance with the Consent Decree, the following solutions may be mixed in any combination within the Acid Value Recovery Tank for use in equipment cleaning and subsequent recovery in the Acid Value Recovery System[6]: Phosphogypsum Stack System Wastewater, Process Wastewater, or NHACS mixed with either sulfuric acid, FSA, or phosphoric acid or Acid Value Recovery Tank Effluent.

In accordance with the Consent Decree, the following solutions may be mixed in any combination within SPA equipment for use in equipment cleaning and subsequent recovery in the Acid Value Recovery System[7]: Phosphogypsum Stack System Wastewater, Process Wastewater, or NHACS. These solutions can also be mixed with sulfuric acid, a caustic wash solution, SPA Recovery Unit effluent, or Acid Value Recovery Tank Effluent. The project will also include the development of a dewatering area that is used for mechanically removing solids from units designated as Acid Value Recovery Units and SPA Recovery Units such as pipes, pumps, etc. during repair, maintenance, or turnaround. Solids removal is performed with high pressure cleaning with NHACS or by other mechanical means. If hazardous, pumpable cleaning wastes or other materials (including entrained solids) will be recovered to the Acid Value Recovery System. If non-hazardous, these wastes or other materials can be sent to the Phosphogypsum Stack or recovered within manufacturing operations. Non-pumpable solids, if non-hazardous, will be disposed of in the Phosphogypsum Stack System. If hazardous, these solids will be handled in compliance with RCRA Requirements as defined in Paragraph 9 of the Consent Decree. After cleaning, the equipment is either returned to the plant or disposed of in compliance with applicable law. Units designated as part of Upstream Operations or as Mixed-Use Units may also be cleaned in this area. Wastes or other materials generated from the cleaning of Upstream Operations or Mixed-Use Unit operations can be

[6] If Upstream Operations or Mixed-Use Units are cleaned with Process Wastewater, Phosphogypsum Stack System Wastewater and/or NHACS without the addition of chemicals such as FSA or sulfuric acid, the cleaning wastes or other materials may be discharged to the Phosphogypsum Stack System or used within Upstream Operations.
[7] Caustic wash solution may be sent to the Phosphogypsum Stack System if non-hazardous.

disposed of in the Phosphogypsum Stack System in accordance with Paragraph 17 of the Consent Decree.

3. Acid Value Recovery Options

The Acid Value Recovery System will be engineered to return wastes or other materials generated from cleaning Acid Value Recovery and SPA Recovery Units into Upstream Operations/Mixed-Use Unit operations where their values are recovered or managed through the following (Diagram 2):

a. As a wash on the Phosphogypsum filter, provided that the wash passing through the filter is sent to the phosphoric acid reactor; and/or

b. As direct make up to the phosphoric acid reactors; and/or

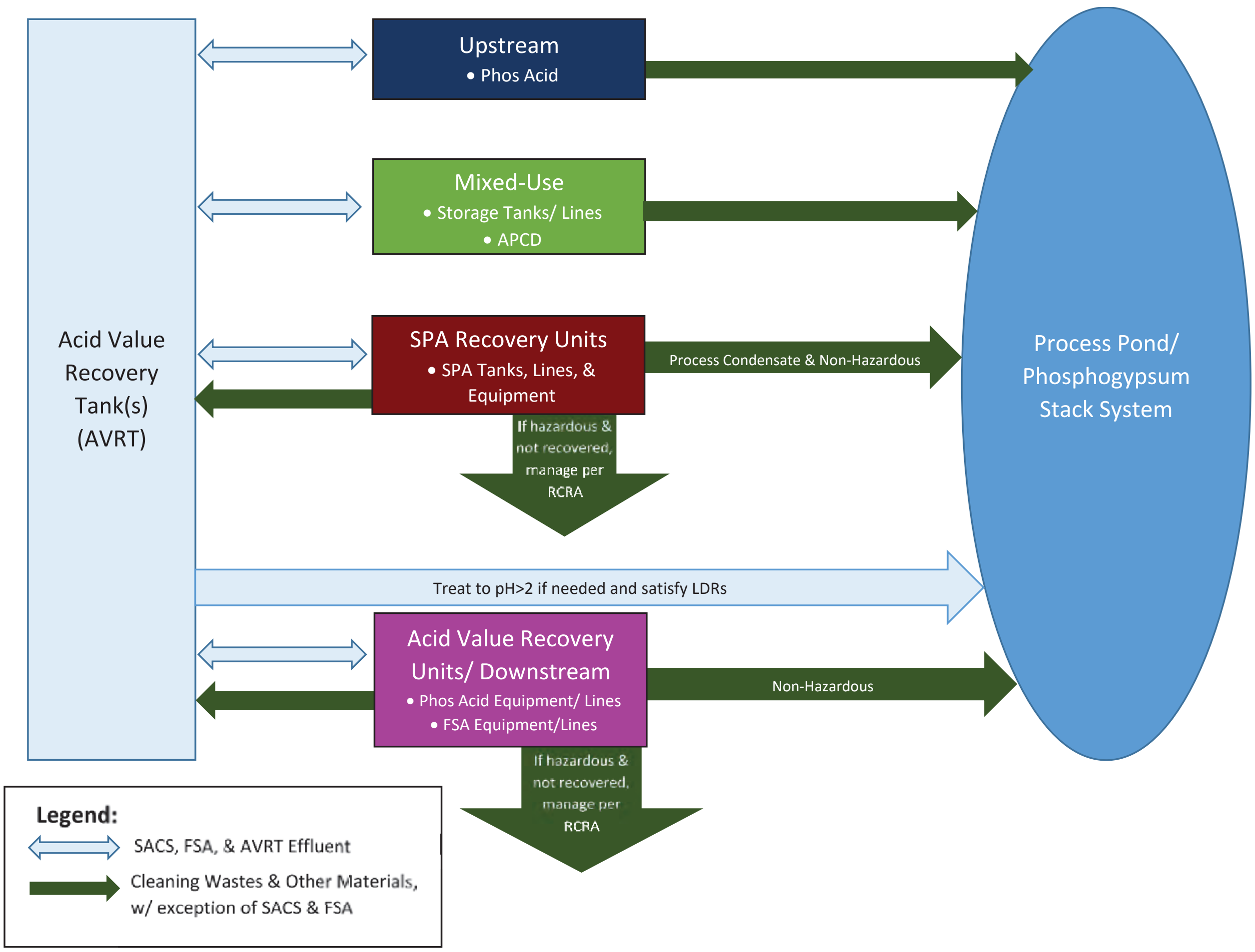
c. Used in a pre-reacted ore process unit, as described in Section VIII(Proposed Phosphoric Acid Production Related Operations).

d. Discharged to the Phosphogypsum Stack System, if in compliance with the LDR standards set forth in 40 C.F.R. Part 268, Subpart D; and/or

e. Placed in the evaporator feed tanks or phosphoric acid storage tanks for recovery, if representative sampling[8] for the stream has shown a P_2O_5 content above 1%.

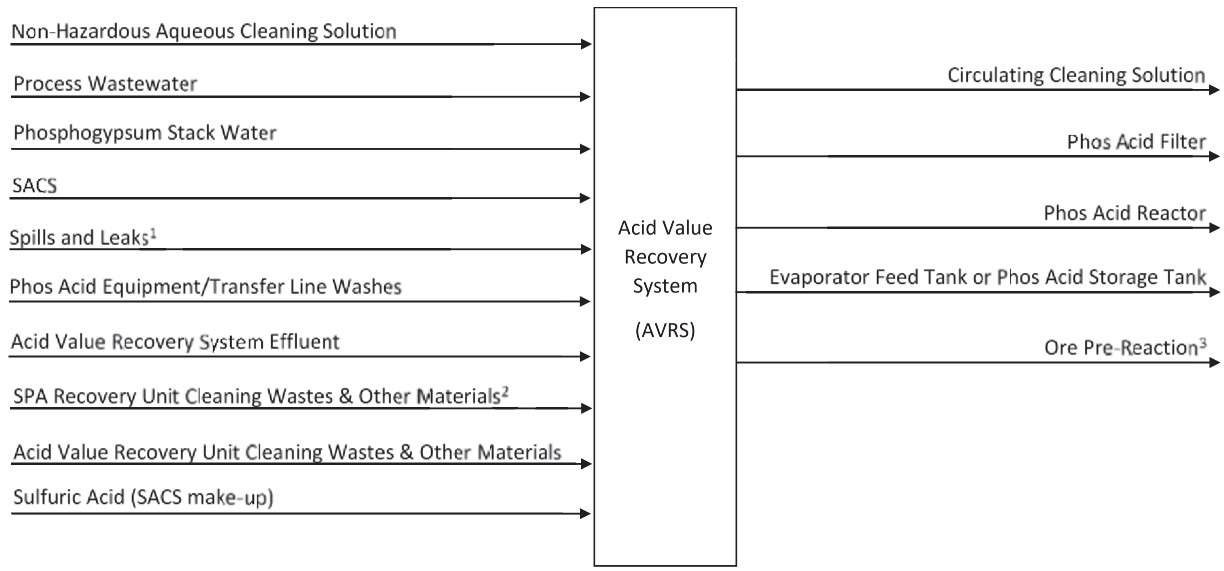
[8] Representative sampling will include quarterly sampling, or sampling at the frequency of generation if cleaning wastes or other materials are generated less than quarterly and may be performed in-house.

Diagram 1. Acid Value Recovery Tank Inputs and Effluents[9]



[9] This diagram is a simplification of the management requirements for the Acid Value Recovery System inputs and effluents. Nothing in this diagram substitutes for or overrides the narrative descriptions in the Facility Report or Appendix 5.A.

Diagram 2. Acid Value Recovery Tank Inputs and Effluents[10]



[1] Spills and leaks include: P_2O_5, H_2SO_4, FSA, and mixtures of the proceeding with Process Wastewater, Phosphogypsum Stack Water, and NHACS
[2] Does not include SPA Process Condensate or non-hazardous wash materials (specifically C Evaporator caustic washes)
[3] Potential Future Project described in Section VIII of the Facility Report

B. Granulation Related Projects

1. Project Descriptions

<u>Project 3. Granulation Recovery System and Wash Solution System in Granulation Plant</u>

Simplot has a Granulation Recovery System for the Granulation Plant installed and operating. The Granulation Recovery System consists of a sump, collection tank, and pumps to transport and recirculate wash solution between the Granulation Recovery System Units, the Granulation Recovery System, and/or consume the wash solution in the Granulation Plant as specified in Section VI.B.2 Project Operations below.

<u>Project 4. Upgrade Granulation Plant Pads and Sumps as Needed</u>

Simplot will modify or install, as needed, containment pads and sumps in the Granulation Plant to improve the capture of spills, leaks, and cleaning solution

[10] This diagram is a simplification of the management requirements for Acid Value Recovery System inputs and effluents. Nothing in this diagram substitutes for or overrides the narrative descriptions in the Facility Report or Appendix 5.A.

so materials may be returned to the Granulation process via the Granulation Recovery System, as identified in the Facility Report.

2. Project Operations

Solutions and solids generated from cleaning Granulation equipment other than Acid Value Recovery System Units as described in the Facility Report will either be recovered in the Granulation process or characterized to determine if they are hazardous under the RCRA Requirements as defined in Paragraph 9 of the Consent Decree for corrosivity (pH equal to or less than 2 or pH equal to or greater than 12.5) and/or toxicity. If they are non-hazardous, then the solids may be transferred to the Phosphogypsum Stack System. The Granulation Recovery System enables Simplot to recover the value of cleaning wastes or other materials generated from the use of SACS, NHACS, Process Wastewater, Phosphogypsum Stack System Wastewater, 54% Phosphoric Acid, or Granulation Recovery System effluent from pipes, tanks, process equipment, or other storage or transport units identified as Granulation Recovery System Units. In accordance with Appendix 5.A, the Granulation Recovery System also enables Simplot to recover spills and leaks in Containable Impervious Areas within the Granulation Plant described in Section VII (Containment of Phosphoric Acid Production Related Spills and Leaks) of this Facility Report.

Granulation dry side equipment, such as the granulator, dryer, cooler, elevators, screens, and milling equipment are cleaned by mechanical means and the material is recovered through the dry reclaim system. High pressure cleaning with NHACS may be used to remove hard scale material and, if hazardous, this material will be recovered to the Granulation Recovery System. If non-hazardous, then this scale material may either be recovered to the Granulation Recovery System or disposed of in the Phosphogypsum Stack System.

NHACS may be used for wash down of the floors, conveyor belts, and other equipment within the Granulation Plant. The resulting streams will be recovered to the Granulation Recovery System. SACS, FSA, Process Wastewater, and Phosphogypsum Stack System Water may not be used to wash down floors within the Granulation Plant.

a. The Granulation Recovery Tank will in turn reuse or recover the recoverable streams as follows:

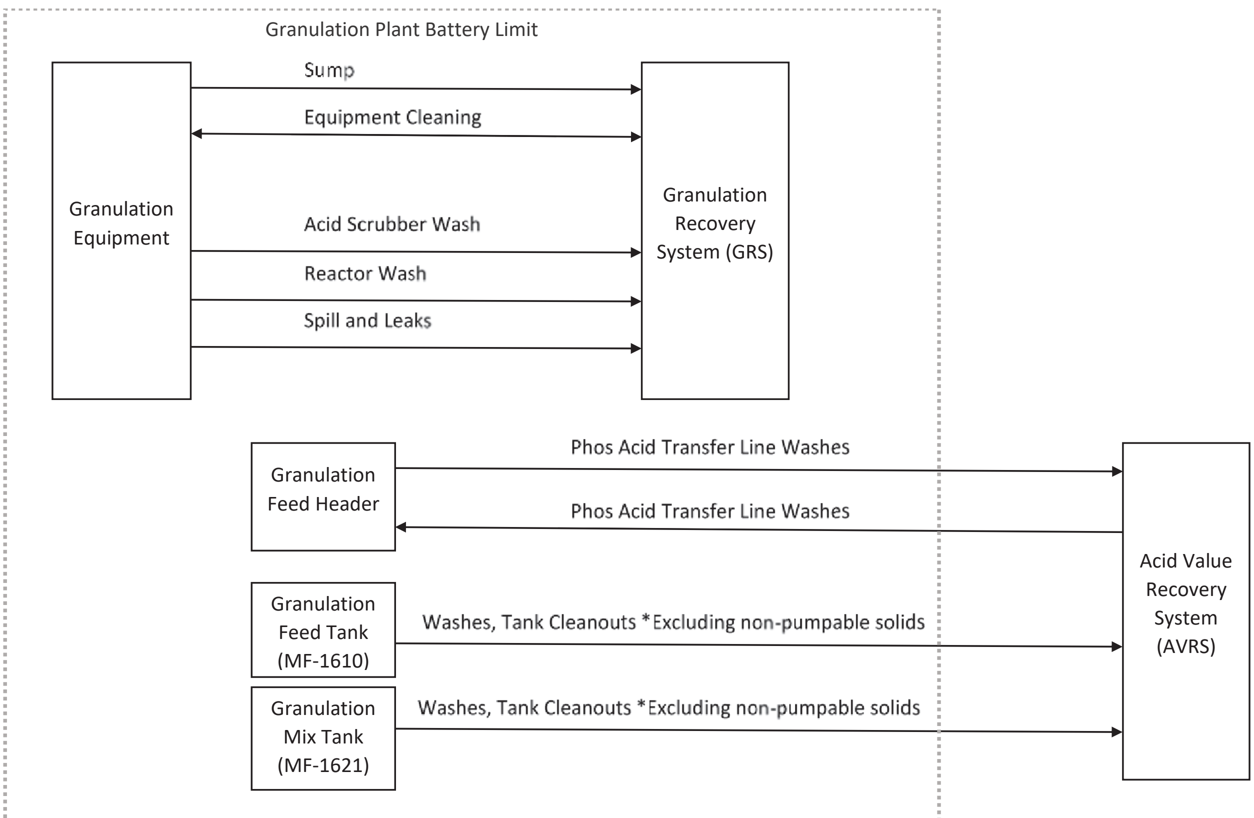
   i. Consumed in the acid scrubber system for consumption in the Granulation process; and/or

ii. Consumed in the Granulation reactor; and/or

iii. Recirculated to clean Granulation Recovery System Units.

To clean the Granulation Recovery Tank, Simplot may transfer the contents of the Granulation Recovery Tank to Granulation Plant's Acid Value Recovery System Units described in Section V.E.1 above, as temporary Granulation Recovery Tank(s). The Granulation Recovery Tank will then be washed with a cleaning solution (SACS, Process Wastewater, Phosphogypsum Stack System Wastewater, or NHACS) and the cleaning solution from this cleaning may be recovered to the temporary Granulation Recovery Tank(s), recovered back into Granulation directly, and/or disposed of in accordance with RCRA Requirements.

Diagram 3 – Granulation Plant Equipment and Recovery System Designation along with System Inputs and Effluents[11]



[11] This diagram is a simplification of the management requirements for Granulation Recovery System inputs and effluents. Nothing in this diagram substitutes for or overrides the narrative descriptions in the Facility Report or Appendix 5.

VII. Containment of Phosphoric Acid Production Related Spills and Leaks

A. Non-Segregable Areas (Figure 11)

The concrete pads within the non-segregable areas of the Facility's Phosphoric Acid Plant are sloped towards lined sumps that transport any leaks and spills to the Phosphogypsum Stack System. For the #1, #2, and #3 Acid Sumps, Process Wastewater flows through the sumps at a rate of 300-500 gpm to the HDPE-lined Phosphogypsum Stack System. There are some areas in the Phosphoric Acid Plant area that are not concrete and they are shown with redlines in Figure 12. The non-concrete areas are designated as "other areas" such that spills and leaks in these areas are managed in accordance with RCRA Requirements and any other applicable law.

B. Containable Impervious Areas (Figure 12)

1. SPA Acid and Re-pulp Sump Area
2. SPA Shipping and FSA Area
3. Car Wash Sump Area
4. C Evaporator Area
5. Granulation Plant Area

Spills and leaks of phosphoric acid, sulfuric acid, and FSA onto impervious areas designated by yellow lines in Figure 12 ("containable impervious areas") will be separately contained, and then recovered in accordance with Appendix 5.A. The foregoing does not relieve Simplot of its obligations for any spills and leaks under any applicable law.

C. Semi-Segregable Areas (Figure 13)

1. 44/54 or #2 Tank Farm Area
2. East Phosphoric Acid Pipe rack
3. #1 or Badger Tank Farm Area
4. D/E Evaporator Area

For the Semi-Segregable Area sumps, Process Wastewater has intermittent and unpredictable flows through the sumps at varying rates in the range of several hundred to a few thousand gallons a minute depending upon location and circumstance. The normal flow path for the sumps in these areas will be to the Phosphogypsum Stack System. Due to the engineered slope of the concrete pad in these areas and the configuration of the Phosphoric Acid Plant, spills and leaks of phosphoric acid, sulfuric acid, SPA, and FSA onto the concrete pad will flow to the sump and mix with the Process Wastewater being pumped from the sump. If high acid content is detected by acid content monitoring instruments, then the entire flow from the sump will be diverted for recovery in accordance with Appendix 5.A (Minimizing and Addressing Spills and Leaks).

D. Other Areas

Any leak or spill of a hazardous material, including phosphoric acid and sulfuric acid, that is not contained within the Containable Impervious Areas, Semi-Segregable Areas, or Non-Segregable Areas of the plant will be managed in accordance with RCRA Requirements and any other applicable law.

VIII. Proposed Phosphoric Acid Production Related Operations

Simplot has advised EPA and WDEQ that it is considering one or more of the following projects at its Rock Springs Facility, but planning has not evolved to where detailed information is available.

A. Upstream Operations Units

The following future installations will be designated as Upstream Units:

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Figure 1: [redacted]

B. Mixed-Use Units

The following future installations will be designated as Mixed-Use Units:

[redacted]

[redacted]

C. Partially Upstream Operations, Mixed-Use Units, Acid Value Recovery Units, SPA Recovery Units, and/or Downstream Operations Units

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Figure 2: [redacted]

However, the Consent Decree does not bind Simplot to implement the proposed project(s) as depicted in the above figures and diagrams. If Simplot chooses to implement any changes through a different process than any of those depicted in the above figures and diagrams, then the Facility Report will be modified prior to implementation pursuant to Section XVII (Modification) of the Consent Decree, and EPA will determine whether the new process as designed involves Upstream Operations units, Mixed-Use Units, Acid Value Recovery System Units, or Downstream Operations units and amend the Facility Report to memorialize those determinations consistent with the descriptions below. Such determinations will be conditioned upon the new process being built substantially as designed. If the new process deviates from that standard, then EPA will determine whether the new process as built involves Upstream Operations, Mixed-Use Units, Acid Value Recovery System Units, or Downstream Operations and amend the Facility Report to memorialize those determinations consistent with the descriptions above.

IX. Non Phosphoric Acid Production Proposed Project

Simplot has advised EPA that it is considering the following project at its Rock Springs Facility, but planning has not evolved to where detailed information is available. Once Simplot decides to implement this proposed project and the project has identifiable units associated with the process, Simplot should confer with EPA to assign unit designations and modify the Facility Report.

[redacted]

X. Authorized Future Installations

This section applies to future installations that were not considered based on current or proposed projects.

A. Procedure

The projects in (B) below will be deemed Upstream Operations units, Mixed-Use Units, Acid Value Recovery Units or Granulation Recovery Units as applicable, when installed within contained concrete areas and will not require prior approval by EPA provided that:

1. Simplot's Phosphogypsum Stack System is in compliance with the requirements of Appendix 1.B (Phosphogypsum Stack System Construction and Operational Requirements) of the Consent Decree, and that Simplot is in compliance with the Financial Assurance requirements of the Consent Decree (Paragraph 26 and Appendix 2); and

2. Simplot provides EPA with written notice at least ninety (90) Days in advance of the reconfiguration or installation of said project

However, if, as a result of circumstances that require Simplot to install or reconfigure such equipment in less than ninety (90) Days from the time a decision is made to undertake such action, then Simplot will provide written notice to EPA as soon as possible and in all events prior to the installation or reconfiguration of such equipment; and

3. Simplot obtains and/or modifies any permit(s) required by local, state, or federal agencies; and

4. Simplot submits to EPA for approval a modified version of this Facility Report with the changes identified at least sixty (60) Days in advance of the reconfiguration or installation of said project; and

5. If applicable, Simplot submits to EPA for approval any modified section(s) of Appendix 5.A (Minimizing and Addressing Spills and Leaks) at least forty-five (45) Days in advance of the reconfiguration or installation of said project.

B. Future Installations

1. Any existing tank within the battery limits of the Phosphoric Acid Plant (Figure 14) which may or may not be storing phosphoric acid, can be converted to phosphoric acid storage service up to, but excluding, MGA.

Any tank placed into phosphoric acid storage service will be structurally adequate and physically compatible with the contents of the tank.

2. Up to a total of two new phosphoric acid tanks storing First Saleable Product may be added within the battery limits of the Phosphoric Acid Plant (Figure 14), where the stored phosphoric acid product in the new tank(s) will be sent for use in Granulation so long as the new unit performs the same function as the existing Acid Value Recovery System tanks identified in this Facility Report. The installation of more than two such tanks will require advance approval by EPA in order to be considered an Acid Value Recovery Unit.

3. APCDs (scrubbers) may be newly installed, replaced, or modified if they are servicing Upstream Operations or Mixed-Use Units identified in this Facility Report. APCDs may not be reconfigured to service any Downstream Operations or any chemical processes which they are not already serving as identified in this Facility Report.

4. APCDs (scrubbers) may be newly installed, replaced, or modified if they are servicing Acid Value Recovery Units or Downstream Operations units identified in this Facility Report, provided the blowdown from these APCDs is non-hazardous in accordance with RCRA requirements.

5. Phosphoric acid piping systems and underflow piping systems associated with Upstream Operations, Mixed-Use Units, or Acid Value Recovery Units, identified in this Facility Report may be installed, replaced, or modified provided that the replacement or modified systems are located within the battery limits of the Phosphoric Acid Plant (Figure 14) or the tank farms, excluding Granulation, and serve only the phosphoric acid production operations identified in this Facility Report for those Upstream Operations, Mixed-Use Units or Acid Value Recovery Units.

XI. Alternate Equipment Name Reference Tables

Tank/Equipment Name	Tank No.	Type of Service Phos Acid (%) or Other	Alternate Name(s)
#1 Reactor	MR-1202	28	Isothermal Reactor
#1 Reactor Seal Water Tank	MS-1218	Process Water	Reactor Seal Water Tank or
#1 Reactor Filter Feed Tank	MF-1203	28	None
#2 Reactor	MR-1252	28	No. 2 Isothermal Reactor
#2 Reactor Filter Feed Tank	MF-1253	28	None
#1 Filter Table	GF-1301	28	#1 Filter or Badger Filter
#1 Filter Filtrate Separator	MS-1301	28	#1 Fish Tank or Badger Filter Filtrate Separator or Badger Fish Tank
#1 Filter #1 Filtrate Box	MS-1308	28	Badger Filter #1 Filtrate Box
#1 Filter #2 Filtrate Box	MS-1309	Process Water	Badger Filter #2 Filtrate Box
#1 Filter Table Acid Trap Tank	MS-1305	28	#1 Filter Table Acid Trap Seal Tank or Seal Pot or #1 Filter Table Separator Seal Tank or Badger Filter Acid Trap Tank
#1 Filter Gypsum Slurry Tank	MS-1303	Gypsum Slurry	#1 Gyp Tank or Badger Gyp Tank
#1 Filter Wash Water Tank	MS-1307	Process Water	Badger Filter Wash Water Tank
Wash Water Heater	TT-1303	Process Water	Badger Wash Water Heater
#2 Filter Table	GF-6301	28	#2 Filter or Mustang Filter
#2 Filter Filtrate Separator	MS-6301	28	#2 Fish Tank or Mustang Filter Filtrate Separator or Mustang Fish Tank
#2 Filter #1 Filtrate Box	MS-6308	28	Mustang Filter #1 Filtrate Box
#2 Filter #2 Filtrate Box	MS-6309	Process Water	Mustang Filter #2 Filtrate Box
#2 Filter Separator Seal Tank	MS-6310	28	#2 Filter Table Acid Trap Seal Tank or Seal Pot or #2 Filter Table Acid Trap Tank or Mustang Filter Separator Seal Tank
#2 Filter Gypsum Slurry Tank	MS-6303	Gypsum Slurry	#2 Gyp Tank or Mustang Gyp Tank
#2 Filter Wash Water Tank	MS-6307	Process Water	Mustang Filter Wash Water Tank

Tank/Equipment Name	Tank No.	Type of Service Phos Acid (%) or Other	Alternate Name(s)
#2 Filter Wash Water Heater	TT-6303	Process Water	Mustang Filter Wash Water Heater
#3 Filter Table	GF-6351	28	Hatch Filter
#3 Filter Filtrate Separator	MS-6351	28	#3 Fish Tank or Hatch Fish Tank
#3 Filter #1 Filtrate Pump Box	MS-6358	28	Hatch Filter #1 Filtrate Pump Box
#3 Filter #2 Filtrate Pump Box	MS-6359	Process Water	Hatch Filter #2 Filtrate Pump Box
#3 Filter Separator Seal Tank	MS-6350	28	#3 Filter Table Acid Trap Seal Tank or Seal Pot or #3 Filter Table Acid Trap Tank or Hatch Filter Separator Seal Tank
#3 Filter Gypsum Slurry Tank	MS-6353	Gypsum Slurry	#3 Gyp Tank or Hatch Gyp Tank
#3 Filter Wash Water Tank	MS-6357	Process Water	Hatch Filter Wash Water Tank
Blend Tank	MF-1251	Process Water	Pond Water Blend Tank
#1 28% Clarifier	MF-1501	28	Old 28% Clarifier or 28% Clarifier
#2 28% Clarifier	MF-1503	28	New 28% Clarifier
#1 28% Storage Tank	MF-1502	28	Old 28% Storage Tank or 28% Storage Tank
#2 28% Storage Tank	MF-1514	28	New 28% Storage Tank
#3 28% Storage Tank	MF-1504	28	None
#1 28% Clarifier Wash Box	MS-1505	28, 44, Equipment Washes	None
#2 28% Clarifier Wash Box	MS-1506	28, 44, Equipment Washes	None
A Evaporator	GE-1402A	28, 44, 54	None
A Evaporator Heat Exchanger	TT-1401	28, 44, 54	A Evaporator Tube Bundle
A Evaporator Barometric Condenser	PE-1409A	Process Water	A Barometric
A Evaporator Ejector System	PE-1410A, PE-1411A, PE-1412A	Process Water, Steam	None
B Evaporator	GE-1402B	28, 44, 54	None

Tank/Equipment Name	Tank No.	Type of Service Phos Acid (%) or Other	Alternate Name(s)
B Evaporator Heat Exchanger	TT-1402	28, 44, 54	B Evaporator Tube Bundle
B Evaporator Barometric Condenser	PE-1409B	Process Water	B Barometric
B Evaporator Ejector System	PE-1410B, PE-1411B, PE-1412B	Process Water, Steam	None
A/B Evaporator Condenser Hotwell	MS-1408	Process Water	A & B Evaporator Hotwell or A/B Evaporator Hotwell
Cooling Water Sump	MT-1308	Process Water	A & B Evaporator Barometric Sump
Tank Farm Collection Tank	MS-1517	Process Water	Old A & B Evaporator FSA Recirculation Tank or Badger Tank Farm Collection Tank
44% Clarifier Tank	MF-6551	44	44% Clarifier
44%/54% Sludge Tank	MF-6508	44/54 Sludge	Mustang Sludge Tank or 44/54 Sludge Tank
44% Clarifier Wash Box	MS-6553	44, 54, Equipment Washes	None
D Evaporator	GE-6401	28, 44, 54	None
D Evaporator Heat Exchanger	TT-6401	28, 44, 54	D Evaporator Tube Bundle
D Evaporator Barometric Condenser	PE-6409	Process Water	D Evaporator Barometric
D Evaporator Ejector System	PE-6410, PE-6411, PE-6412	Process Water, Steam	None
D Evaporator Hotwell	MS-6408	Process Water	None
D Evaporator Condenser Water Heat Exchanger	TT-6404	Process Water	D Evaporator Plate and Frame
D Evaporator Fluoride Recovery Tower	MF-6404	Process Water	D Evaporator FSA Recovery Tower or D FSA Scrubber Vessel
D Evaporator FSA Recirculation Tank	MS-6406	Process Water	D Evaporator FSA Primary Tank
D Evaporator Secondary FSA Recirculation Tank	MS-6416	Process Water	D Evaporator FSA Secondary Tank
E Evaporator	GE-1450	28, 44, 54	None
E Evaporator Heat Exchanger	TT-1451	28, 44, 54	E Evaporator Tube Bundle
E Evaporator Barometric Condenser	PE-1459	Process Water	E Evaporator Barometric

Tank/Equipment Name	Tank No.	Type of Service Phos Acid (%) or Other	Alternate Name(s)
E Evaporator Ejector System	PE-1451, PE-1452, PE-1453	Process Water, Steam	None
E Evaporator Hotwell	MS-1458	Process Water	None
E Evaporator Fluoride Recovery Tower	MF-1451	Process Water	E Evaporator FSA Recovery Tower or E FSA Scrubber
E Evaporator FSA Recirculation Tank	MS-1456	Process Water	E Evaporator FSA Tank
54% Clarifier Tank	MF-6503	54	54% Clarifier
54% Clarifier Wash Box	MS-6506	44, 54, Equipment Washes	None
44% Storage Tank	MF-6552	44	None
54% Storage Tank	MF-6504	54	None
54% Shipping Clarifier	MF-1507	54	52% Cold Clarifier
Sludge Pre-Mix Tank	MF-1509	44/54/SPA Sludge	Pre-Mix Tank
Badger Fume Scrubber System	GK-1304A, GK-1304B	Fumes & Process Water	A&B Fume Scrubber System or Badger Building (area) Fume Scrubber System or Badger FSR Scrubber
C Fume Scrubber System	GK-6304	Fumes & Process Water	Mustang Building (area) Fume Scrubber System or Mustang Fume Scrubber System or Mustang FSR Scrubber
D Fume Scrubber System	GK-6354	Fumes & Process Water	Hatch Building (area) Fume Scrubber System or Hatch Fume Scrubber System
C Evaporator	GE-2701	44, 54, 69	SPA Evaporator
C Startup Tank	MS-2704	NHACS	C Wash Startup Tank
C Evaporator Cooler Tank	MS-2711	69	C Cooler Tank
SPA Product Cooler	TT-2703	69	None
C Fluoride Recovery Tower	MS-2705	SPA Process Condensate	C FSA Recovery Tower
C FSA Recirculation Tank	MS-2706	SPA Process Condensate	C FSA Tank or C FSA Scrubber Tank
#1 Aging Tank	MF-2788	69	None
#2 Aging Tank	MF-2773	69	None

Tank/Equipment Name	Tank No.	Type of Service Phos Acid (%) or Other	Alternate Name(s)
#3 Aging Tank	MF-2751	69	None
SPA Filter Feed Cooler	TT-2771	69	None
SPA Filter Feed Tank	MS-2711	69	Filter Feed Tank
SPA Filter Press	GF-2784	69	Filter Press or SPA Filter
SPA Re-Pulp Sump	GS-2787	SPA Sludge	Re-Pulp Sump
SPA Filtrate Receiver Tank	MS-2758	69	Receiver Tank
SPA Shipping Tank A	MF-2759A	69	A Tank
SPA Shipping Tank B	MF-2759B	69	B Tank
54% Shipping Storage Tank	MF-2503	54	52% Cold Storage or 54% Shipping Tank
SPA Sludge Tank	MF-2754	SPA Sludge	Sludge Tank
Granulation Mix Tank	MF-1621	44/54/SPA Sludge	Mix Tank
Granulation Feed Tank	MF-1610	44/54/SPA Sludge	Sludge Feed Tank
FSA Clarifier #1	MS-6701	FSA	FSA Settling Tank #1
FSA Clarifier #2	MS-6702	FSA	FSA Settling Tank #2
FSA Clarifier #3	MS-6703	FSA	FSA Settling Tank #3
FSA Polishing Filter #1	GF-6701	FSA	FSA Filter or FSA Product Filter
FSA Polishing Filter #2	GF-6702	FSA	FSA Filter or FSA Product Filter
FSA Storage Tank	MF-6701	FSA	FSA Product Tank

Line Name	Phos Acid Service (%)	From	To	Alternate Name(s)
#1, #2, #3, #4 Granulation Feed Line(s)	44, 54	44% Transfer Line(s) and/or 54% Transfer Line(s)	Granulation	#1, #2, #3, #4 Granulation Transfer Line(s) or 44 & 54 Feed Lines
Mixed Sludge Line	44/54/SPA Sludge	Pre-Mix Tank or 44%/54% Sludge Line	Granulation	1510 Line

Line Name	Phos Acid Service (%)	From	To	Alternate Name(s)
44% Transfer Line(s)	44	44% Storage Tank	#1, #2, #3, #4 Granulation Feed Line(s); C Evaporator Feed Line; A,B,D,E Evaporators	None
54% Transfer Line(s)	54	54% Storage Tank	#1, #2, #3, #4 Granulation Feed Line(s); C Evaporator Feed Line; 54% Shipping Clarifier; D, E Evaporators	None
44%/54% Sludge Line	44/54/SPA Sludge	44%/54% Sludge Tank	Pre-Mix Tank or Mixed Sludge Line	6509 Line or 44/54 Sludge Line
C Evaporator Feed Line	44 or 54	44% Transfer Line(s) and/or 54% Transfer Line(s)	C Evaporator	None
C Cooler Tank to SPA Product Cooler Line	69	C Evaporator	SPA Product Cooler	None
SPA Product Line	69	SPA Product Cooler	SPA Aging Tank	69 Product Line
SPA Aging Tank to SPA Filter Feed Cooler Line	69	#3 Aging Tank	Filter Feed Cooler	None
SPA Filter Feed Line	69	SPA Filter Feed Tank	SPA Filter	None
SPA Re-Pulp Sump to SPA Sludge Tank Line	SPA Sludge	SPA Re-Pulp Sump	SPA Sludge Tank	None
SPA Sludge Line	SPA Sludge	SPA Sludge Tank	Pre-Mix Tank or 44%/54% Sludge Tank or #2 Filter Feed Tank or #1, #2, or #3 Filter Tables	None
FSA Clarifier(s) Feed Line(s)	FSA	D Evaporator FSA Recirculation Tank, or D Evaporator Secondary FSA Recirculation Tank, or E Evaporator FSA Recirculation Tank	FSA Clarifiers	None
FSA Polishing Filter Feed Line(s)	FSA	FSA Clarifier(s)	FSA Polishing Filter(s)	None

Line Name	Phos Acid Service (%)	From	To	Alternate Name(s)
FSA Product to Storage Line(s)	FSA	FSA Polishing Filter(s)	FSA Storage Tank	None
FSA Load Out Line	FSA	FSA Storage Tank	FSA Load Out	None

Sump Name	No.	Area serviced	Pumped To	Alternate Name(s)
#1 Acid Sump	MT-1311	#1 Reactor/#1 Filter Table	#1 Gyp Tank	Badger Acid Sump
#2 Acid Sump	J-6302	#2 Filter Table	#2 Gyp Tank or #3 Gyp Tank	Mustang Acid Sump
#3 Acid Sump	J-6352	#3 Filter Table	#3 Gyp Tank	Hatch Acid Sump or #3 Filter Acid Sump
54 Pad Sump	J-6501	44 Clarifier/Storage, 54 Clarifier/Storage	#2 or #3 Gyp Tank	#2 Tank Farm Sump or 54 Area Sump or 44/54 Area Sump
New Reactor Sump	J-1251	#2 Reactor	#2 Gyp Tank	#2 Reactor Sump or #2 Reactor Acid Sump
#1 Tank Farm Sump	MT-1315	Tank Farm/ Blend Tank/ A&B Evaporators	Tank Farm Collection Tank or Directly to Phosphogypsum Stack System	Badger Tank Farm Sump
D Acid Sump	J-6401	D Evaporator/ E Evaporator	#2 Gyp Tank	D/E Evaporator Area Acid Sump or D/E Evaporator Sump
SPA Acid Sump	GS-2787	SPA Aging/ MGO Filtration	SPA Sludge Tank	Re-Pulp Sump
Car Wash Sump	MF-2504	Rail Car Wash/ Load Out	28% Clarifier Wash Box	Acid Load-Out Sump
Granulation Sump	MF-1623	Granulation	Use within Granulation Plant	MAP/DAP Sump

Appendix: Figures and Tables

Figure 3: Rock Springs Overall Phosphoric Acid Production Process

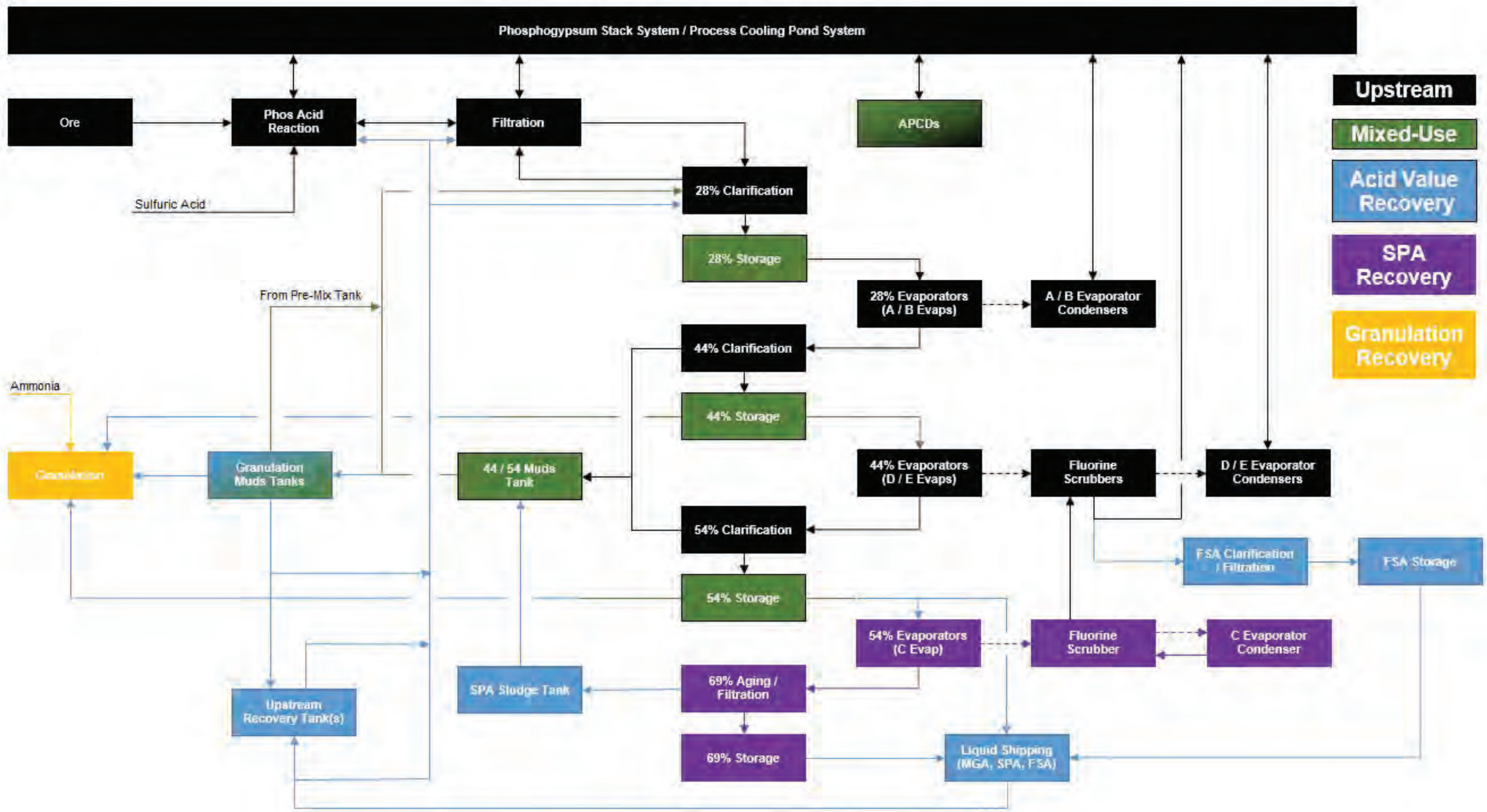


Figure 4: [redacted]

Figure 5: FSA Process

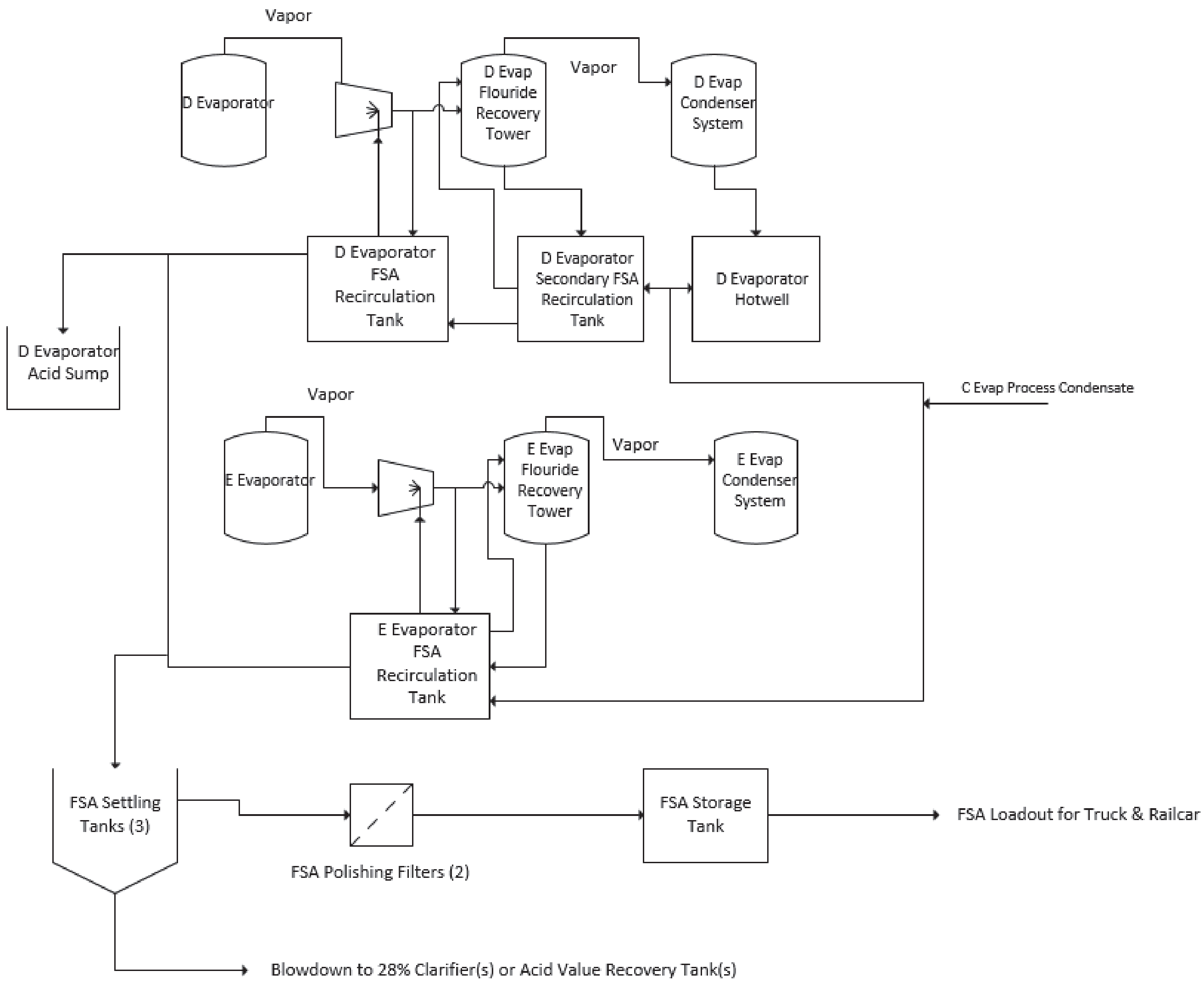
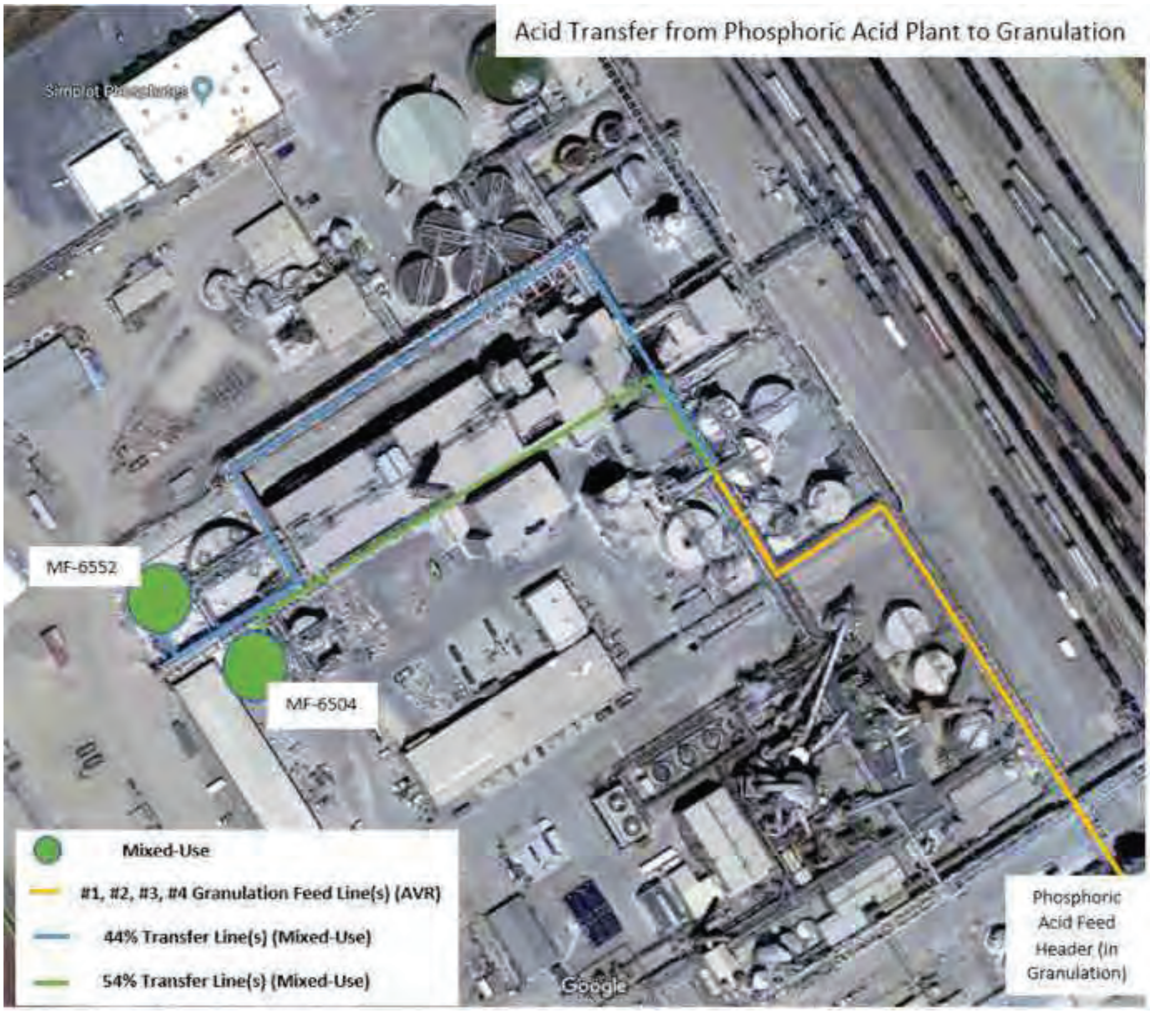


Figure 6: Acid Transfer from Phosphoric Acid Plant to Granulation[12]



[12] AVR: Acid Value Recovery

Table 1: Acid Transfer from Phosphoric Acid to Granulation Line Details

Service	**Name**	**Description**	**Cleaning Frequency**	**Est. Length (ft)**[13]
44% Acid	44% Transfer Line	Transfers 44% Acid from 44% Storage Tank to C Evap Feed Line, A,B,D, or E Evaporator(s), or #1, #2, #3, #4 Granulation Feed Line(s)	As needed	1170
54% Acid	54% Transfer Line	Transfers 54% Acid from 54% Storage Tank to C Evap Feed Line, 54 Shipping Clarifier, D or E Evaporator(s), or #1, #2, #3, #4 Granulation Feed Line(s)	As needed	770
28%/44%/54% Acid	#1 Granulation Feed Lines	Transfers 28%, 44%, or 54% to Granulation	As needed	830
28%/44%/54% Acid	#2 Granulation Feed Lines	Transfers 28%, 44%, or 54% to Granulation	As needed	830
28%/44%/54% Acid	#3 Granulation Feed Lines	Transfers 28%, 44%, or 54% to Granulation	As needed	830
28%/44%/54% Acid	#4 Granulation Feed Lines	Transfers 28%, 44%, or 54% to Granulation	As needed	830

[13] The lengths listed in this chart are estimates based on interpreting Google images and including a 20% factor (ft) for estimating vertical runs. The actual lengths may differ.

Figure 7: Sludge Transfer from Phosphoric Acid Plant to Granulation

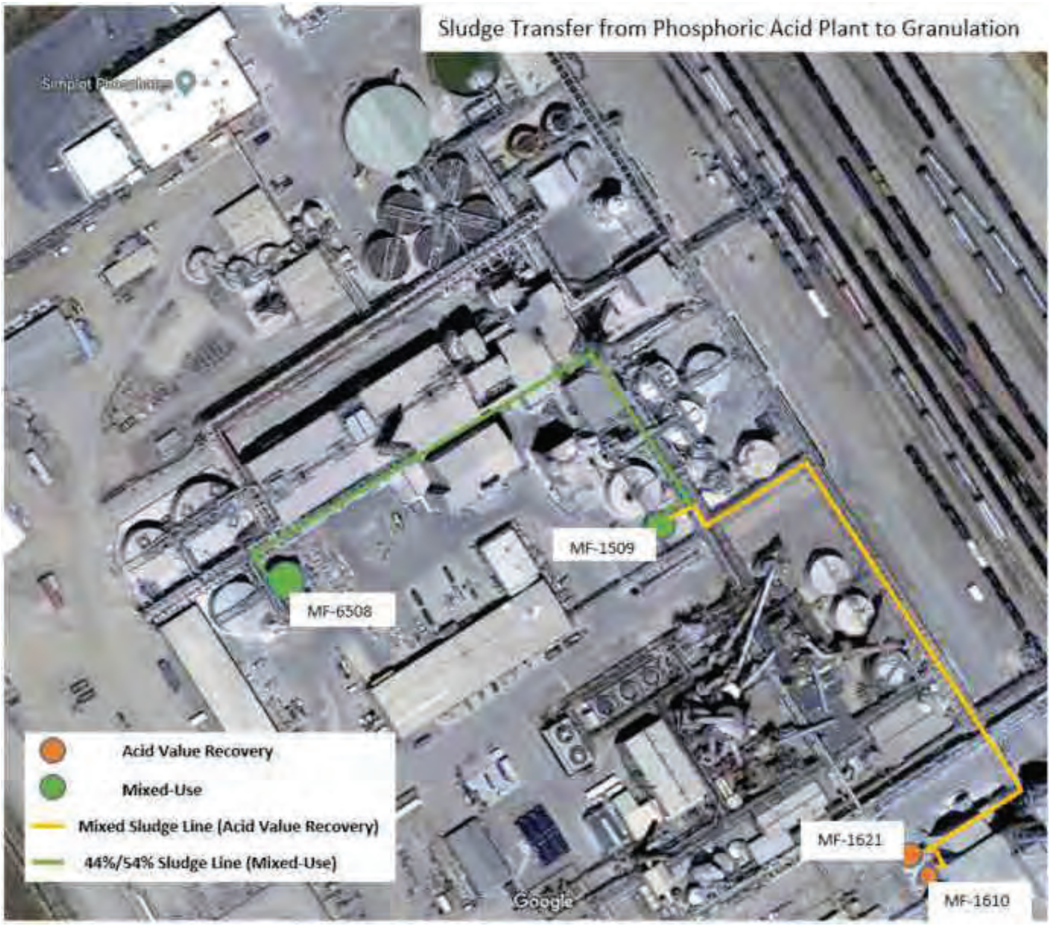


Table 2: Sludge Transfer between the Phosphoric Acid Plant and Granulation Line Details

Service	**Name**	**Description**	**Cleaning Frequency**	**Est. Length (ft)**[14]
Phosphoric Acid Sludge	44%/54% Sludge Line	Transfers Sludge from the 44%/54% Sludge Tank to the Pre-Mix Tank or to the Mixed Sludge Line	As needed	870
Phosphoric Acid Sludge	Mixed Sludge Line	Transfers Sludge from the Pre-Mix Tank or the 44%/54% Sludge Line to the Granulation Mix Tank and/or the Granulation Feed Tank	As needed	990

[14] The lengths listed in this chart are estimates based on interpreting Google images and including a 20% factor (ft) for estimating vertical runs. The actual lengths may differ.

Figure 8: Acid Transfer from Phosphoric Acid Plant to C Evaporator

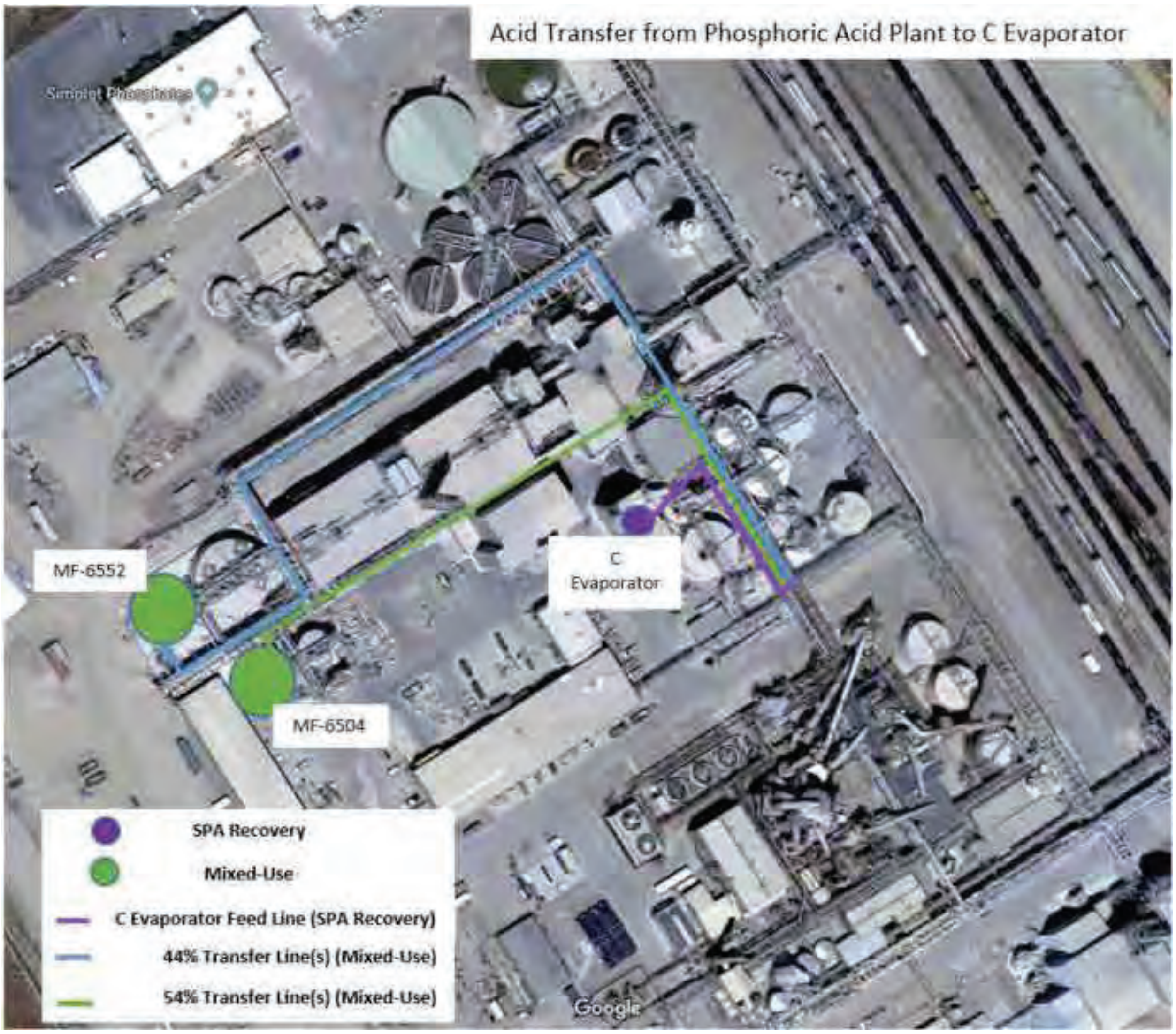


Table 3: Acid Transfer from Phosphoric Acid Plant to C Evaporator Line Details

Service	Name	Description	Cleaning Frequency	Est. Length (ft)[15]
44% Acid	44% Transfer Line	Transfers 44% Acid from 44% Storage Tank to C Evap Feed Line, A,B,D, or E Evaporator(s), or #1, #2, #3, #4 Granulation Feed Line(s)	As needed	1170
54% Acid	54% Transfer Line	Transfers 54% Acid from 54% Storage Tank to C Evap Feed Line, 54 Shipping Clarifier, D or E Evaporator(s), or #1, #2, #3, #4 Granulation Feed Line(s)	As needed	770
44%/54% Acid	C Evaporator Feed Line	Transfers 44% or 54% from 44% or 54% Transfer Line to C Evaporator	As needed	330

[15] The lengths listed in this chart are estimates based on interpreting Google images and including a 20% factor (ft) for estimating vertical runs. The actual lengths may differ.

Figure 9: Acid Transfer from Phosphoric Acid Plant to Truck and Rail Load Out

Table 4: Acid Transfer from Phosphoric Acid Plant to Truck and Rail Load Out Line Details

Service	Name	Description	Cleaning Frequency	Est. Length (ft)[16]
54% Acid	54% Load Out Line	Transfers 54% Acid from 54% Shipping Storage Tank to Truck and Rail Load Out	As needed	730

[16] The lengths listed in this chart are estimates based on interpreting Google images and including a 20% factor (ft) for estimating vertical runs. The actual lengths may differ.

Figure 10: FSA to Truck and Rail Load Out

Table 5: FSA to Truck and Rail Load Out Line Details

Service	Name	Description	Cleaning Frequency	Est. Length (ft)[17]
FSA	FSA Load Out Line	Transfers FSA from FSA Storage Tank to Truck and Rail Load Out	As needed	430

[17] The lengths listed in this chart are estimates based on interpreting Google images and including a 20% factor (ft) for estimating vertical runs. The actual lengths may differ.

Figure 11: Non-Segregable Areas

Figure 12: Containable and Non-Impervious Areas

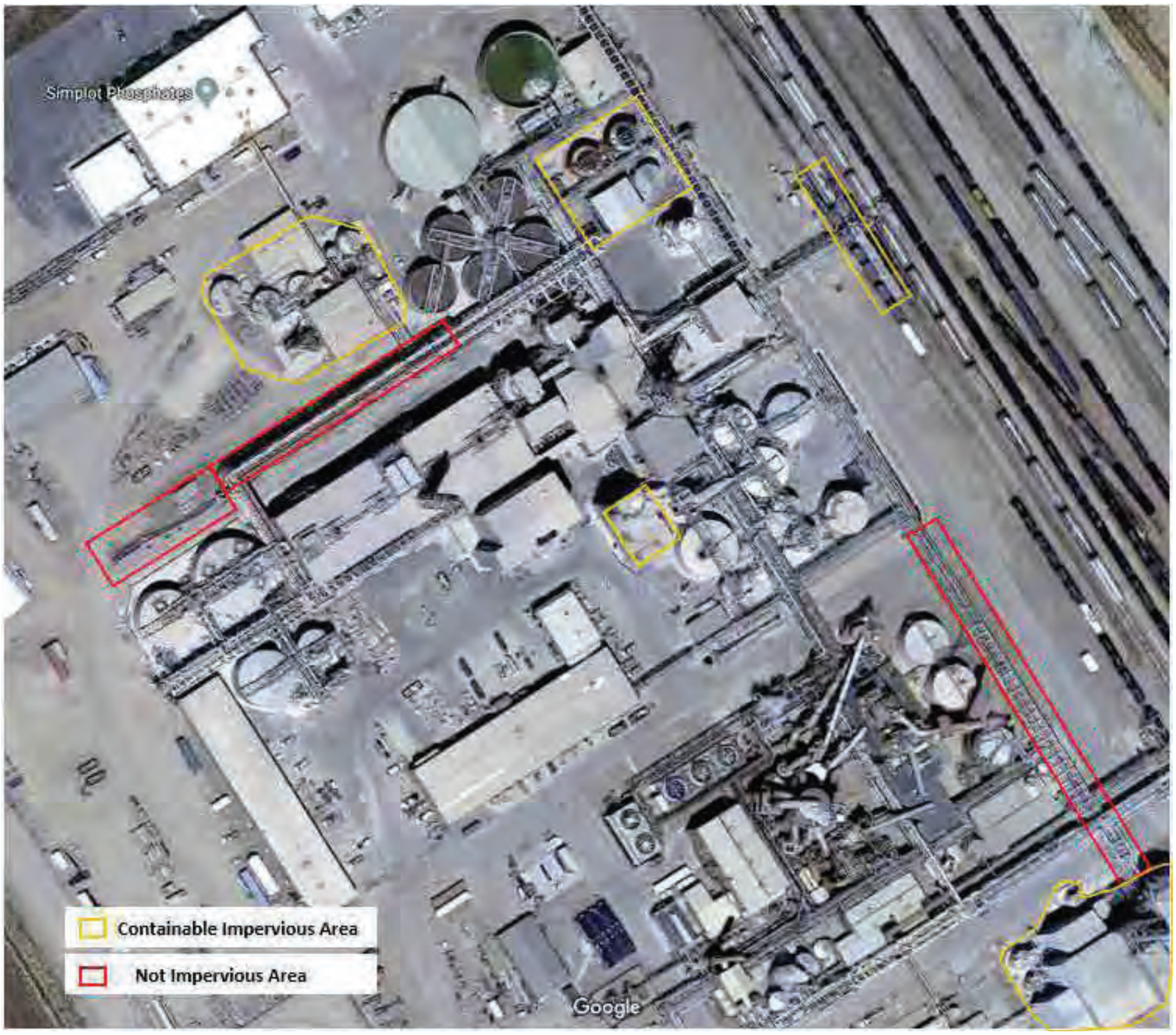


Figure 13: Semi-Segregable Areas

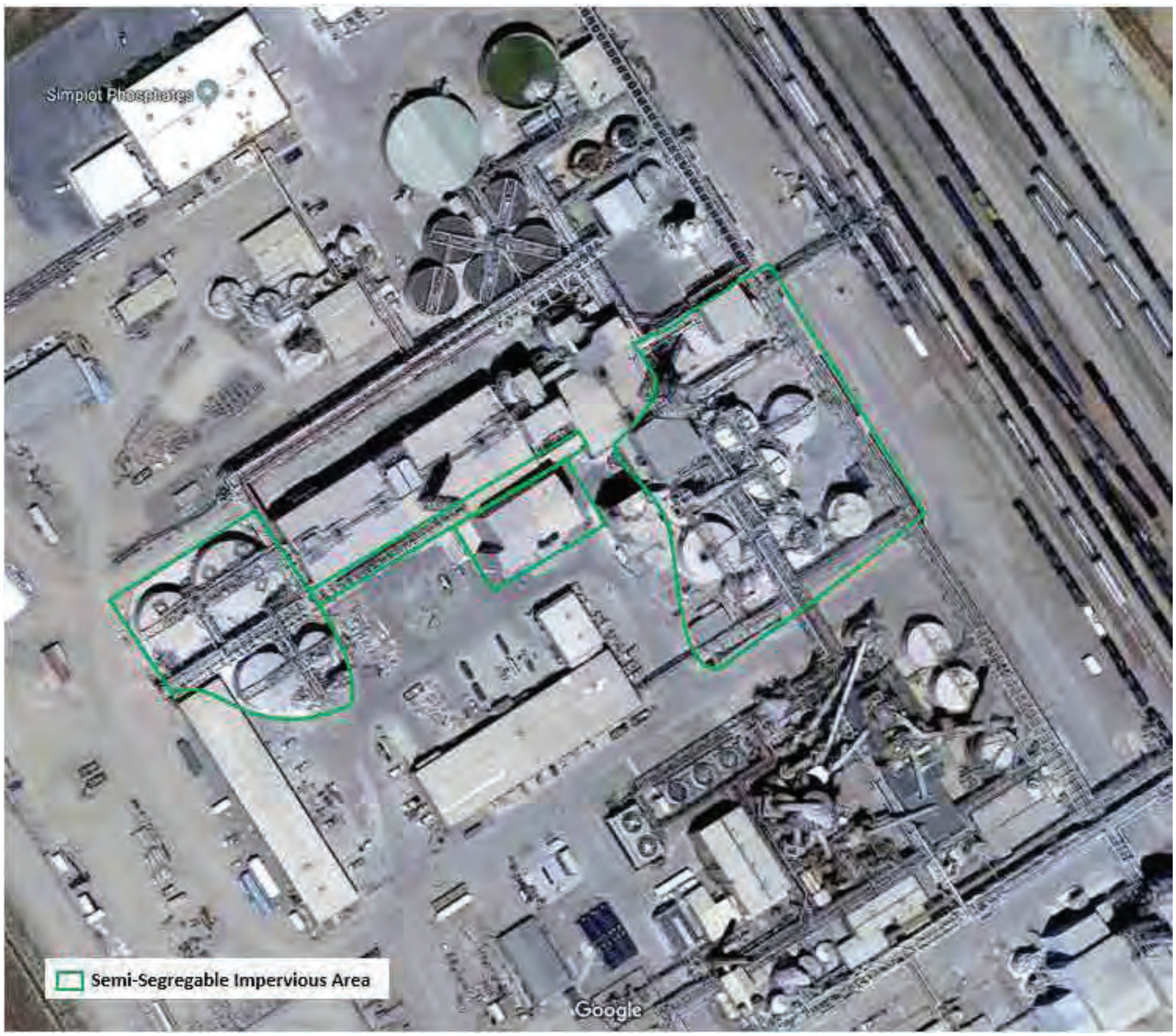
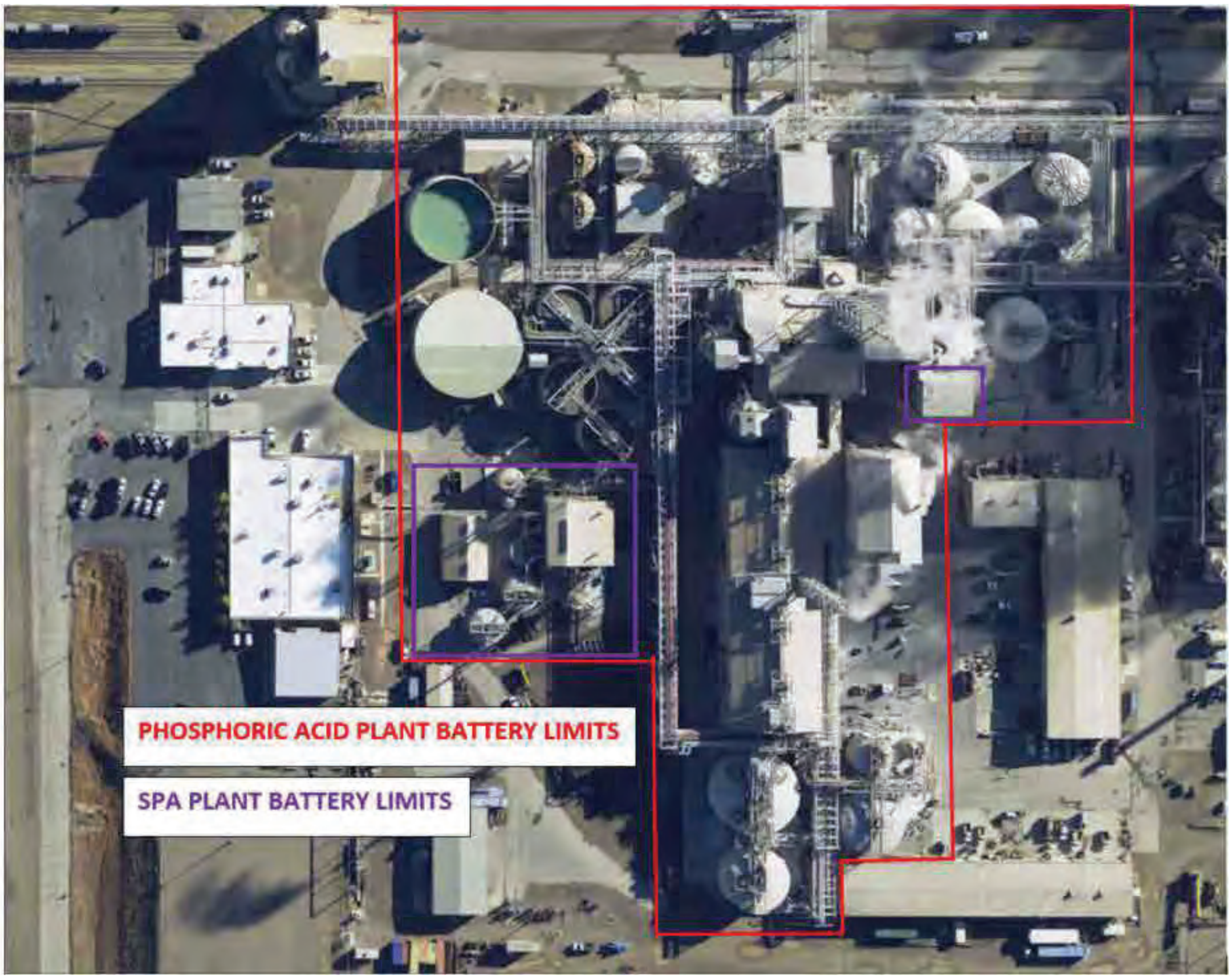


Figure 14: Phosphoric Acid Plant Battery Limits



Appendix 5

Best Management Practices (BMP) Plan

Appendix 5.A

Minimizing and Addressing Spills and Leaks

Rock Springs

Final

May 13 2020

Corporate Environmental & Regulatory Affairs
1099 W. Front St., Boise, ID 83702
(202) 780-7303

Table of Contents

Introduction

Simplot has developed Appendix 5.A: Best Management Practices Plan (hereinafter either "BMP" or "Plan") to reduce unintended inputs[1] of phosphoric acid, sulfuric acid, fluorosilicic acid (FSA)[2], and SACS to Process Wastewater entering the Phosphogypsum Stack System. Where possible, Simplot will capture and reuse these materials. The BMP excludes equipment cleaning practices; these are addressed in Appendix 4 of the Consent Decree (the Facility Report), Section VI (Compliance Projects). This Plan also addresses other chemicals used at the Facility to ensure proper management and reduce unintended releases of these materials to the environment.

Through the BMP, Simplot has established procedures to address the management, tracking, and reporting of phosphoric acid, sulfuric acid, and FSA leaks[1] and spills[1] for its fertilizer production facilities in Rock Springs, Wyoming; in areas of the phosphoric acid plant (post first-stage filtration, e.g. table filters), including acid clarification and evaporation, and in the Granulation plants. The specific details of the BMP for the phosphoric acid ("Phosphoric Acid Plant") and Granulation plants are discussed in the Sections that follow and the referenced Attachments. Where noted, certain BMP procedures are dependent upon the commencement of operation of the compliance projects set forth in Appendix 6 (Project Narrative & Compliance Schedules), to the Consent Decree.

All capitalized terms and/or acronyms not otherwise defined in this Appendix shall have the meaning set forth in the Consent Decree or in Appendix 9.

[1] For purposes of this BMP document: "unintended inputs", "leaks, and "spills" are synonymous and mean accidental or unplanned escape of process streams (i.e. acid or cleaning solution) from the primary container, conveyance piping, valves, flanges, and/or pumps onto impervious surfaces with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1) or onto non-impervious surfaces.

[2] FSA is produced once it enters the transfer line to the FSA Settling Tanks described in Section IV.D of the Facility Report; before this point the process condensate from the phosphoric acid evaporators involved with FSA production is Process Wastewater.

1 Containment of Phosphoric Acid Production Related Spills and Leaks

1.1 Non-Segregable Areas (Figure 1)

The concrete pads within the non-segregable areas ("Non-Segregable Areas") of the Simplot Rock Springs Phosphoric Acid Plant are sloped towards lined sumps that transport any leaks and spills to the Phosphogypsum Stack System. For the #1, #2, and #3 Acid Sumps, Process Wastewater flows through the sumps at a rate of 300-500 gpm to the HDPE-lined Phosphogypsum Stack System. There are some areas in the phosphoric acid area that are not concrete and they are shown with redlines in Figure 2. The non-concrete areas are designated as "other areas" such that spills and leaks in these areas must be managed in accordance with RCRA and any other applicable law.

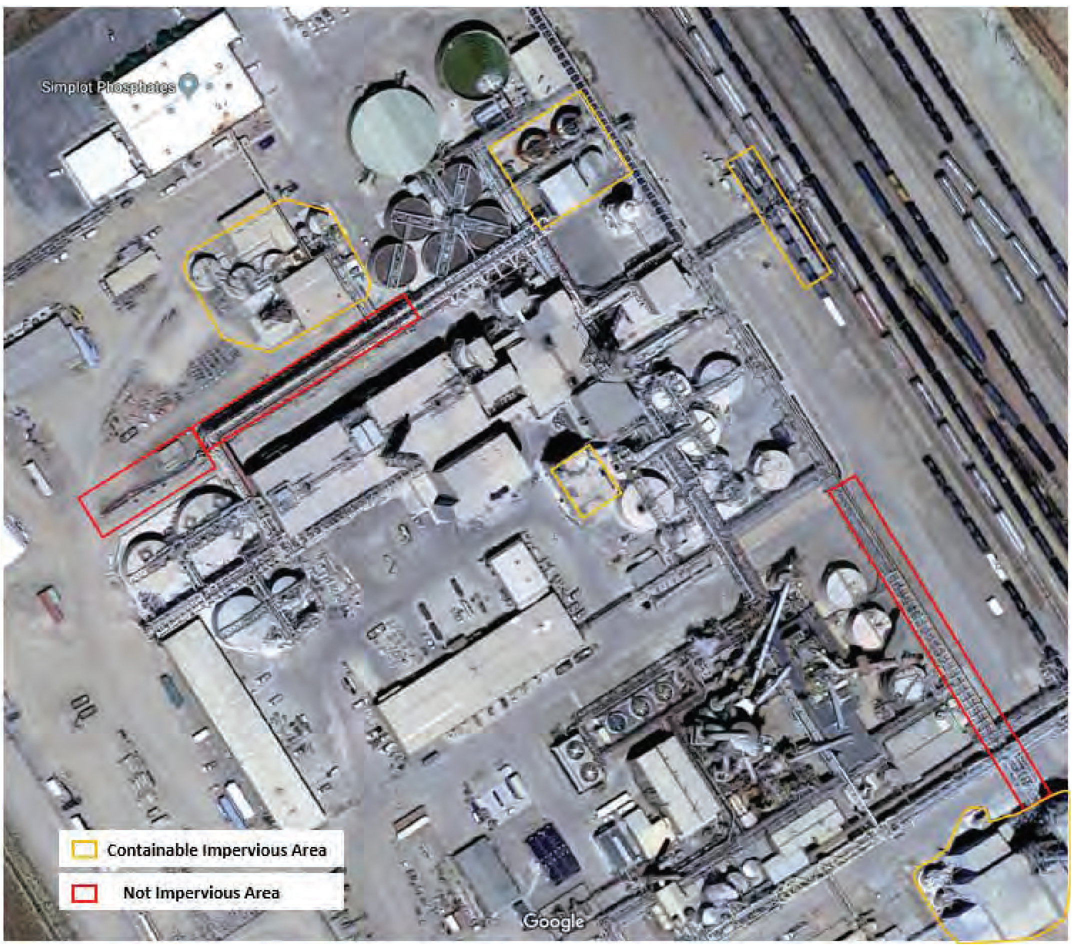
Figure 1: Non-Segregable Areas

1.2 <u>Containable Impervious Areas (Figure 2)</u>

1. SPA Acid and Re-pulp Sump Area
2. SPA Shipping and FSA Area
3. Car Wash Sump Area
4. C Evaporator Area
5. Granulation Plant Area

Spills and leaks of phosphoric acid, sulfuric acid, and FSA onto impervious areas designated by yellow lines in Figure 2 ("Containable Impervious Areas") must be separately contained, and then recovered in accordance with the BMP. The foregoing shall not relieve Simplot of its obligations to manage any spills and leaks under RCRA or any other applicable law.

Figure 2: Containable Impervious Areas and Non-Impervious Areas ("Other Areas")

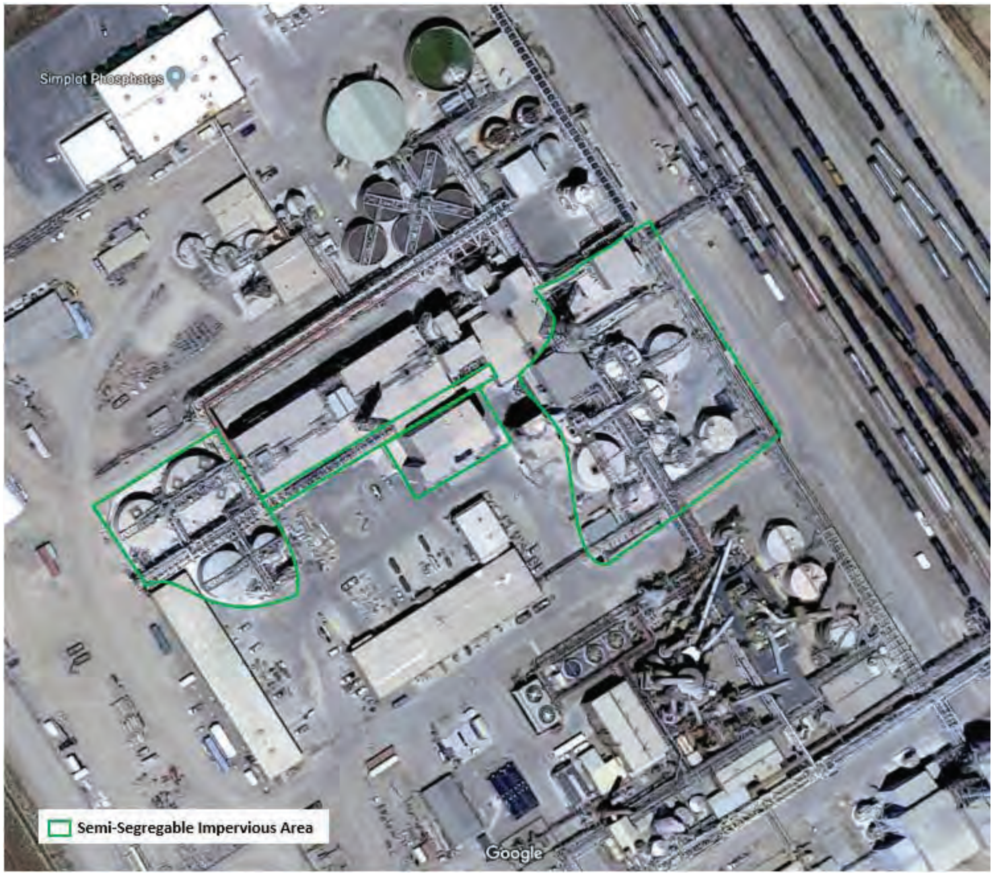


1.3 Semi-Segregable Areas (Figure 3)

1. 44/54 or #2 Tank Farm Area
2. East Phosphoric Acid Pipe rack
3. #1 or Badger Tank Farm Area
4. D/E Evaporator Area

For the semi-segregable area ("Semi-Segregable Areas") sumps, Process Wastewater has intermittent and unpredictable flows through the sumps at varying rates in the range of several hundred to a few thousand gallons a minute depending upon location and circumstance. The normal flow path for the sumps in these areas will be to the Phosphogypsum Stack System. Due to the engineered slope of the concrete pad in these areas and the configuration of the Phosphoric Acid Plant, spills and leaks of phosphoric acid, sulfuric acid, SPA, and FSA onto the concrete pad will flow to the sump and mix with the Process Wastewater being pumped from the sump. If high acid content is detected by acid content monitoring instruments, then the entire flow from the sump will be diverted for recovery in accordance with the BMP.

Figure 3: Semi-Segregable Areas



1.4 Other Areas (Figure 2)

Any leak or spill of a hazardous material, including phosphoric acid and sulfuric acid, that is not contained within the Containable Impervious Areas, Semi-Segregable Areas, or Non-Segregable Areas of the plant shall be managed in accordance with RCRA and any other applicable law.

2 Phosphoric Acid Plants Leak / Spill Detection Systems and Response Procedures

2.1 General

Simplot will implement two approaches to increase the likelihood of detecting Non-Segregable Area acid leaks, spills and process upsets: operator inspections and acid content monitoring in Non-Segregable and Semi-Segregable Area sumps. While acid content monitoring is exclusive to Non-Segregable and Semi-Segregable Areas, operator inspections also serve to identify observable leaks and spills of acids regardless of the area of the plant where they occur – Non-Segregable, Semi-Segregable, Contained Impervious, or outside Contained Impervious Areas ("Other Areas").

2.2 Release Reporting

Simplot personnel are responsible for notifying the appropriate personnel immediately upon identifying a leak or spill of any hazardous material listed in Attachment A, Table 1-BMP Actionable Volumes (hereinafter, "Table 1 Materials") with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1) pursuant to this BMP. This BMP does not relieve Simplot of its obligation to comply with any federal, state, or local laws applicable to hazardous materials releases to the environment.

2.3 Inspections

Operators will visually inspect plant process equipment, floors and sumps for leaks and/or spills of phosphoric acid, sulfuric acid, and FSA during their normal rounds a minimum of twice per shift (2 shifts per day) and document the inspection findings. A leak or spill, as referenced throughout this BMP, is defined as an accidental or unplanned release of Table 1 Materials from the primary container, conveyance piping, valves, flanges, and/or pumps with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1) within a 24 hour period and/or which triggers the alarm limits for the acid content monitoring system on key outgoing sumps in Non-Segregable Areas. The operator will attempt to correct leaks from valves, flanges, pumps, or any other equipment that can be readily and safely corrected at the time of discovery. The incident(s) will be reported to management for further action and recorded in the tracking database for future reference. Reporting responsibilities are outlined in Simplot's Spill Reporting Policy and Procedure.

2.4 Acid Content Monitoring System Description: Non- & Semi-Segregable Spills / Leaks

The Facility will monitor key outgoing sumps (see Attachment B) with an acid content monitoring system to enable the continuous detection of changes in acid content that indicate occurrence of detectable acid leaks and spills. Each key outgoing sump will have a measurement device to continuously measure the acid content of the Process Wastewater being pumped from the sump as shown in Attachment B of this Plan. The acid content monitoring of the return Process Wastewater stream from each non-segregable and semi-segregable sump will be displayed on the operators' distributive control system (DCS) (see Attachment B of this Plan for an example).

Acid leaking or spilling into an outgoing sump stream will increase the acid content of the aqueous water stream within and exiting the sump. Within Non-Segregable Areas, alarms will be triggered if the acid content increases beyond the set alarm limits for a 5-minute interval. Upon triggering of such an alarm, the area around the measurement device will be investigated (see Attachment B of this BMP for the corrective action plan, or "Corrective Action Plan")). For semi-segregable sumps, alarms will be triggered if the acid content increases beyond the set alarm limits for a 2-minute interval. Upon triggering of such an alarm, the sump will be automatically switched to recovery (see Attachment B) by the DCS once the alarm sounds and the area around the measurement device will be investigated. After the acid content within the semi-segregable sump reduces below the alarm threshold for a 2-minute interval, the process wastewater flow from the semi-segregable sump will be automatically reverted to discharge back to the Phosphogypsum Stack System by the DCS. The locations of acid content monitoring devices are found in Attachment B of this Plan.

Individual measurement devices will alarm based on the preliminary trigger values set for each device found in Attachment B of this Plan. The targets shown in Attachment B of this Plan are the preliminary targets for the Facility. Pursuant to Section 7: BMP Performance Standards, Simplot will monitor the devices for a period of one year starting from the date of completion of the applicable compliance project in Appendix 6 (RCRA Project Narrative and Compliance Schedule) to the Consent Decree, to ensure settings are correct for alerting operations to leaks and spills within the limits of the devices when properly operated and calibrated. Simplot will notify EPA when the one-year monitoring period begins. After the one (1) year period, Simplot will notify EPA of the results and monitoring will continue.

When an alarm triggers, the operator will inspect that area of the plant for any problems and take appropriate measures to stop or minimize the release and minimize further impacts (see Attachment B of this Plan).

The acid content measurement system will be maintained in accordance with specific manufacturer recommendations or acceptable industrial practices and updated as needed. Devices will be checked at least monthly and during any instrument error readings and calibrated if necessary. The calibration dates and alarm limits will be documented in the maintenance management system that is in place at the time. Maintenance and calibration procedures are found in Attachment B of this Plan.

2.5 Tracking / Recording

A tracking database software (currently Enablon)[3] will be used to track leaks and spills of Table 1 Materials with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1) within any rolling 24-hour period and the remedial measures taken to address these leaks and spills. The area management, engineering, and environmental

[3] If problems develop using the Enablon software for the tracking/recording required in this Appendices 5A and 5B, an alternative tracking/recording method will be put in place.

departments will use the maintenance management system to ensure the prompt and proper execution of corrective actions. When plant personnel identify a leak or spill of Table 1 Materials with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1) within any rolling 24-hour period, appropriate corrective actions will be taken as outlined below. A record of the incident will be entered within 24 hours of the incident into the tracking database software to log and track leaks and spills of Table 1 Materials. Supervisors will be trained to enter incidents into the tracking database software. The tracking database software tracks specific information including date and time of release, date and time of report, a description of the incident, volume of the material, type of material, and additional supporting information. Simplot personnel are responsible for notifying the appropriate personnel immediately upon the identification of a leak or spill.

2.6 Reporting, Recovery, and Corrective Actions

Management and environmental staff will be notified immediately of leaks or spills with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1) to verify the volume of the leak or spill and ensure that it is properly reported, documented, and corrected pursuant to this BMP. The tracking database software will be used to track leaks and spills of Table 1 Materials with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1) within any rolling 24-hour period and the immediate actions taken to address the leak or spill. The area management, engineering, and environmental departments will use the maintenance management system to ensure the prompt and proper execution of corrective actions.

2.6.1 Non-Segregable Areas of the Phosphoric Acid Plants

2.6.1.1 Reporting

A leak or spill of a Table 1 Material into a Non-Segregable Area, with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1) within any rolling 24-hour period, which is detected as a result of visual inspections, alarms, or acid content monitoring must be logged into the tracking database software. See Section 2.6.1.2 (Corrective Actions), below.

Appropriate management and environmental staff will be notified, and the leak or spill will be properly reported, documented, and corrected pursuant to this BMP.

2.6.1.2 Corrective Actions

If a leak or spill of a Table 1 Material into a Non-Segregable Area, with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1) within any rolling 24-hour period is discovered, Simplot will take the following measures:

1. Investigate potential release sources.
2. Address any issues found.
    a. Stop the release if possible, such as by flow diversion or by closing the release gate.

   b. Generate a work order if needed to correct the issue.
3. Document the release in the tracking database software.
4. Report the release to the appropriate agencies pursuant to (or in accordance with) the Consent Decree

This BMP does not relieve Simplot of its obligation to comply with any federal, state, or local laws applicable to hazardous materials releases to the environment.

2.6.2 Containable Impervious Areas

2.6.2.1 Reporting

A leak or spill of a Table 1 Material with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1) into a Containable Impervious Area, as described in the Rock Springs Facility Report, must be logged into the tracking database software and made available to inspectors upon request, but does not need to be reported to the EPA if recovered to a tank containing the same chemical or the Acid Value Recovery System, described in Section 4: Recovery System Operation for Spill and Leak Recovery, of this BMP.

2.6.2.2 Recovery and Corrective Actions

A leak or spill of a Table 1 Material with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1) into a Containable Impervious Area, will be recovered back to a tank containing the same chemical or input into the Acid Value Recovery System via sump pump, vacuum truck, or other means. If unrecoverable due to contamination or location of the spill, the material must be managed in compliance with the RCRA Requirements as described in the Consent Decree. This BMP does not relieve Simplot of its obligation to comply with any other federal, state, or local laws applicable to such a leak or spill.

2.6.3 Semi-Segregable Areas

2.6.3.1 Reporting

A leak or spill of a Table 1 Material into a Semi-Segregable Area, with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1) within any rolling 24-hour period, which is detected as a result of visual inspections, alarms, or acid content monitoring must be logged into the tracking database software. See Section 2.6.3.2: Corrective Actions, below.

Appropriate management and environmental staff will be notified, and the leak or spill will be properly reported, documented, and corrected pursuant to this BMP.

2.6.3.2 Recovery and Corrective Actions

A leak or spill of a Table 1 Material into a Semi-Segregable Area, with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1) within any rolling 24-hour period, which is detected as a result of visual inspections, alarms, or acid content monitoring will be recovered back to a tank containing the same chemical or input into the Acid Value Recovery System, described in Section 4: Recovery System Operation for Spill and Leak Recovery, of this BMP. If unrecoverable due to large volumes of Process Wastewater in the same area or there is a reasonable potential the volume of material pumped to the Phosphogypsum Stack System before the system started collecting reached or exceeded the BMP Actionable Volume, then Simplot will notify the agencies of the release in accordance with the Consent Decree. If the volume pumped to the Phosphogypsum Stack System did not reasonably reach or exceed the BMP Actionable Volume, the leak or spill only needs to be recorded in the tracking database and not reported to the agencies. Upon triggering of an alarm in these areas, Simplot will take the following measures:

1. Investigate potential release sources.
2. Address any issues found.
   a. Stop the release if possible, such as by flow diversion or by closing the release gate.
   b. Generate a work order if needed to correct the issue.
3. Document the release in the tracking database software.
4. Report the release to agencies pursuant with the Consent Decree.

This BMP does not relieve Simplot of its obligation to comply with any federal, state, or local laws applicable to hazardous materials releases to the environment.

2.6.4 Other Areas

2.6.4.1 Reporting

All reasonable measures shall be taken to avoid releases of Table 1 materials outside of plant containment areas. In the event of a release, Simplot must comply with the appropriate federal, state, or local laws applicable to such a release. A leak or spill of a Table 1 Material with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1) must be recorded in the tracking database software and reported pursuant to the Consent Decree.

2.6.4.2 Corrective Actions

All reasonable measures shall be taken to avoid releases of Table 1 materials outside of plant containment areas. In the event of such a release, Simplot must comply with the appropriate federal, state, or local laws applicable to such a release.

2.7 Production Department Responsibilities

The Phosphoric Acid Production Department personnel will be responsible for troubleshooting and correcting process upsets that result in a leak or spill. The operator covering the plant at which the upset occurs will notify his or her supervisor and begin taking immediate action. The appropriate manager or supervisor will enter a leak or spill in the tracking database software.

2.8 Maintenance Department Responsibilities

The Maintenance Department personnel will be responsible for repairs and maintenance of faulty equipment. If the leak or spill is the result of a mechanical failure, then the appropriate operations personnel shall notify the Maintenance Department of the condition and a work order request for correction of the problem is initiated. The Maintenance Department will be responsible for timely completion of leak repairs. Maintenance work order requests and their status are tracked in a computerized maintenance management system.

3 Granulation Plants Leak / Spill Detection Systems and Response Procedures

3.1 General

The purpose of this Section is to assist Simplot's operators with the appropriate management of leaks and spills of phosphoric acid and sulfuric acid in the Granulation pant ("Granulation Plant").

Leaks and spills of a Table 1 Material to secondary containment areas in the Granulation Plant will be captured and returned to the process as soon as practicable. If recovery is not possible, then they will be treated in an appropriate vessel so that they no longer exhibit hazardous characteristics and meet the LDR standards and may be discharged to the Phosphogypsum Stack System. If treatment is not possible, then they will be managed in compliance with the RCRA Requirements as described in the Consent Decree, as well as the specific procedures set forth in this BMP.

3.2 Release Reporting

Simplot personnel are responsible for notifying the appropriate personnel immediately upon the identification of a leak or spill of a Table 1 Material with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1) pursuant to this BMP. This BMP does not relieve Simplot of its obligation to comply with any federal, state, or local laws applicable to hazardous materials releases to the environment.

3.3 Inspections

Operators will inspect the Granulation Plants in the course of their normal rounds and document the inspections. The operator will correct leaks from valves, flanges, pumps, or any other equipment that can be readily and safely corrected at the time of discovery. The incident will be recorded in the tracking database software. Operator and supervisor responsibilities associated with discovery of a spill or leak are outlined in this BMP.

3.4 Recording / Tracking

When plant personnel identify a leak or spill of a Table 1 Material with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1), appropriate actions will be taken as outlined in this BMP. A record of the incident will be entered into the tracking database software within 24 hours of the incident. Supervisors will be trained to enter incidents into the tracking database software. As described in Section 2.5, the tracking database software program tracks specific information including date and time of release, date and time of report, a description of the incident, volume of the material, type of material, and additional supporting information.

3.5 Reporting, Recovery, and Corrective Actions

3.5.1 Containable Impervious Areas of the Granulation Plants

3.5.1.1 Reporting

A leak or spill of a Table 1 Material with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1) to Containable Impervious Areas as described in the Facility Report must be logged into the tracking database software, but does not need to be reported to EPA or other regulatory agency if recovered to a tank containing the same chemical, the Acid Value Recovery System or the Granulation Recovery System, as described below.

3.5.1.2 Recovery and Corrective Actions

A leak or spill of a Table 1 Material with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1) to Containable Impervious Areas as described in the Facility Report will be recovered back to the appropriate process vessel containing the same chemical or input into the Acid Value Recovery System or Granulation Recovery System, as described in the Facility Report.

If unrecoverable for any reason, the leak or spill must be managed in compliance with the RCRA Requirements as described in the Consent Decree. This BMP does not relieve Simplot of its obligation to comply with any federal, state, or local laws applicable to hazardous materials releases to the environment.

3.5.2 Other Areas

3.5.2.1 Reporting

Simplot personnel are responsible for notifying the appropriate personnel immediately upon identification of a leak or spill.

A leak or spill of a Table 1 Material with a reasonable potential to reach or exceed the BMP Actionable Volume (Table 1) that is not contained within a Containable Impervious Area as described in the Facility Report must be recorded in the tracking database software and reported pursuant to the Consent Decree. This BMP does not relieve Simplot of its obligation to comply with any federal, state, or local laws applicable to hazardous materials releases to the environment. The tracking database software shall be used to record such a spill or leak and to track immediate actions taken to address the leak or spill.

3.5.2.2 Corrective Actions

The cleanup of a leak or spill of a Table 1 Material shall be administered in compliance with the Consent Decree. This BMP does not relieve Simplot of its obligation to comply with any federal, state, or local laws applicable to hazardous materials releases to the environment.

3.6 Production Department Responsibilities

The Granulation Production Department personnel shall be responsible for troubleshooting and correcting process upsets. The employee who discovers the upset shall execute his or her responsibilities as outlined in this BMP. The operator covering the plant at which the leak or spill occurred shall notify his or her supervisor and begin taking immediate action. The appropriate manager or supervisor shall enter the incident in the tracking database software.

3.7 Maintenance Department Responsibilities

The Maintenance Department personnel will be responsible for repairs and maintenance to faulty equipment. If the leak or spill is the result of a mechanical failure, then the appropriate operations personnel shall notify the Maintenance Department of the condition and shall initiate a work order request for correction of the problem. The Maintenance Department shall be responsible for timely completion of leak repairs. Maintenance work requests and their status are tracked in a computerized maintenance management system. When the Maintenance Department completes the repairs, the appropriate operations personnel shall be notified.

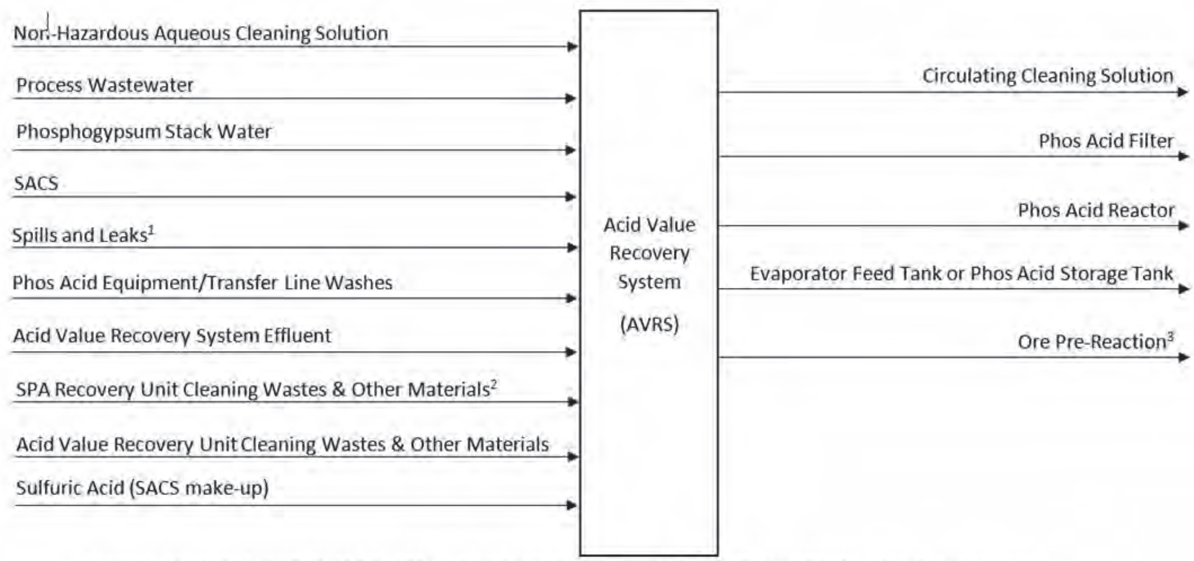
4 Recovery System Operation for Spill and Leak Recovery

4.1 Phosphoric Acid Plant Areas

Simplot may recover spills and leaks of phosphoric acid, sulfuric acid, FSA, SACS, or Acid Value Recovery System Effluent; or NHACS, Process Wastewater, Phosphogypsum Stack System Wastewater, when mixed with any of the preceding solutions due to spills, leaks, or cleaning of leaks and spills, in Containable Impervious and/or Semi-Segregable Areas to a tank containing the same chemical or to the Acid Value Recovery System. The Acid Value Recovery System will return the spills, leaks, and cleaning solution streams to the phosphoric acid production process, where constituent values can be recovered through the methods outlined in Appendix 4 of the Consent Decree, (the Facility Report) Section VI, and as illustrated in Diagram 1 below.

Process Wastewater, Phosphogypsum Stack System Wastewater, or NHACS may be used for washing the floors, building, equipment, etc. in the SPA and/or Phosphoric Acid Plants' Non-Segregable, Semi-Segregable, and Containable Impervious Areas as described in the Facility Report, Section VII: Containment of Phosphoric Acid Production Related Spills and Leaks. These plant wash downs of Non-Segregable and Semi-Segregable Areas are not considered a spill or leak and may be returned to the Phosphogypsum Stack System or the Phosphoric Acid Plant for reuse. Plant wash downs of Containable Impervious Areas (such as within SPA) will be recovered to the Acid Value Recovery System. Plant wash downs may include the wash down of intermittent operation inputs as described in Section 5: Minimization of Operation Phosphoric Acid Inputs, of this BMP and leaks and spills that do not have the potential to reach or exceed the BMP Actionable Volume (Table 1 of this BMP).

Diagram 1: Acid Value Recovery Tank Inputs and Effluents



[1] Spills and leaks include: P_2O_5, H_2SO_4, FSA, and mixtures of the proceeding with Process Wastewater, Phosphogypsum Stack Water, and NHACS
[2] Does not include SPA Process Condensate or non-hazardous wash materials (such as C Evaporator caustic washes)
[3] Potential Future Project described in Section VIII of the Facility Report

4.2 Granulation Areas

The Granulation containment pads shall be designed to collect rainfall, spills, leaks, and cleaning solutions within plant areas. The collection sumps for these containment pads shall pump to the Granulation Plant scrubbers, Granulation Recovery Tank(s) or, if non-hazardous, may be discharged to the Phosphogypsum Stack System. The Granulation Plant acid scrubbers and recovery tank are designed to recover fertilizer materials, product and raw materials for consumption in the Granulation process.

5 Minimization of Operational Phosphoric Acid Inputs

5.1 Background

During normal operation of the Phosphoric Acid Plant, various activities may result in the operational input of phosphoric acid to impervious areas within the confines of the Phosphoric Acid Plant or, indirectly, to the Phosphogypsum Stack System via non-segregable or semi-segregable areas/sumps. These activities include sample collection, slide/knife gate valve operation, clearing plugged piping or process equipment (not to include unplugging via standard cleaning operations), and similar routine operations (other than standard cleaning operations). These routine activities resulting in minor operational inputs shall not be considered unintended inputs, accidental, or unplanned leaks or spills.

Intermittent operational inputs of phosphoric acid to impervious areas or the Phosphogypsum Stack System are unavoidable and shall not be considered malfunctions, leaks, or spills, unless the volume from one of these inputs to the Phosphogypsum Stack System exceeds the BMP Actionable Volume (Table 1). Notwithstanding, operators shall minimize the volume of such phosphoric acid inputs whenever possible and recover acid loss where practicable. Section 5.2 Operational Input Minimization describes some of the common minimization and recovery tactics for these intermittent operational inputs.

5.2 Operational Input Minimization

5.2.1 Sample Collection

Samples of phosphoric acid or reactor slurry collected for purposes of plant process control shall be returned to the process. During sample collection, operational inputs shall be minimized to the extent practicable, releasing only the amount of material necessary out of the primary containment in order to accomplish the task and recovery where practicable.

5.2.2 Clarifier / Valve / Line Operational Releases

Operational inputs of phosphoric acid from clarifier unplugging, valve operation and line unplugging shall be minimized to the extent practicable, releasing only the amount of acid necessary out of the primary containment area in order to accomplish the task and recovery where practicable.

5.3 Response

5.3.1 Releases Outside Containment Areas ("Other Areas")

All reasonable measures will be taken to avoid releases of phosphoric acid outside of plant containment (impervious) areas. This BMP does not relieve Simplot of its obligation to comply with any federal, state, or local laws applicable to hazardous materials releases to the environment.

5.3.2 Emergency Response

Simplot's Spill Reporting Policy and Procedure contains guidance for the management of environmental spills or releases that may require emergency response measures.

6 Containment Integrity Plan

6.1 Background

The mechanical integrity of new, upgraded, or existing containment systems for phosphoric acid shall be managed in accordance with Appendix 5.B (Inspections and Integrity of Tanks, Sumps, and Secondary Containment). The most current versions of these specifications shall be maintained by the Inspections and Environmental Departments.

6.2 Tanks

The mechanical integrity of phosphoric acid tanks shall be managed in accordance with the current version of Appendix 5.B (Inspections and Integrity of Tanks, Sumps, and Secondary Containment).

6.3 Concrete Acid Pads

The integrity of concrete acid pad containment systems for phosphoric acid leaks or spills shall be inspected and evaluated annually in accordance with requirements contained in Appendix 5.B (Inspections and Integrity of Tanks, Sumps, and Secondary Containment).

Simplot shall be responsible for conducting annual inspections of concrete acid pads in the Phosphoric Acid and Granulation Plant areas. Visual inspection will be for the following indicators: erosion/holes, protective liner damage and/or floor drainage irregularities. Inspection results shall be documented in a report with recommendations, reviewed with appropriate management, and implemented as needed.

When Simplot determines it is necessary to replace or partially replace concrete acid pads in the Phosphoric Acid and Granulation Plant areas, under-slab liners shall be installed in the affected area.

6.4 Sumps and Ditches

The mechanical integrity of sumps and ditches used in washing circuits and collection of phosphoric acid leaks or spills shall be managed as specified in Appendix 5.B (Inspections and Integrity of Tanks, Sumps, and Secondary Containment).

Simplot shall be responsible for conducting inspections of sumps and ditches whenever major plant outages, turnarounds, or other events in the Phosphoric Acid and Granulation Plant Areas allow for the sumps to be drained. These sump inspections shall occur at least once every 5 years. Inspection results shall be documented in a report with recommendations and reviewed with appropriate management and implemented as needed.

7 BMP Performance Standards

7.1 Performance Criteria

The goals of the BMP are listed in the Introduction of this Appendix. Simplot will develop appropriate performance criteria consistent with the BMP herein for the purpose of evaluating trends and improving performance. The performance criteria include progress review of the construction and utilization of the projects in Appendix 6 (Project Narrative & Compliance Schedules) to the Consent Decree, BMP training, and implementation of the procedures set forth herein.

Beginning within eighteen months from the Effective Date of the CD, annual meetings will be held with t Wyoming DEQ and/or EPA to review BMP performance. Meeting frequency may be adjusted based on the completion of the implementation schedule.

7.2 Performance Criteria for Spill and Leak Detection

An initial data collection period of 12 months will be used to establish baseline performance criteria (Performance Criteria) for spills, leaks, and other releases. Once BMP Performance Criteria are established, Simplot will review the criteria quarterly. Based upon the reviews, BMPs will be updated as warranted to minimize leaks, spills, and other releases. Simplot will initiate additional review of the BMP Program under the following circumstances:

- At any time during a calendar quarter when two or more leak or spill events of phosphoric acid, sulfuric acid or FSA into “Non-Segregable Areas” have occurred that exceed the quantity shown in Table 1 (BMP Actionable Volumes) in a rolling 24-hour period.
- At any time during a calendar quarter when two or more leak or spill events of phosphoric acid, sulfuric acid or FSA into “Semi-Segregable Areas” have occurred where the unrecovered volume exceeded the quantity shown in Table 1 (BMP Actionable Volumes) in a rolling 24-hour period.
- At any time during a calendar quarter when two or more leak or spill events of phosphoric acid, sulfuric acid or FSA have occurred in “Other Areas” that exceed the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Reportable Quantity.

7.3 Reporting / Auditing

Reporting shall be conducted pursuant to the Consent Decree and the aforementioned Performance Criteria.

8 BMP Training

8.1 Overview Training

An overview of BMP issues and procedures will be included in the periodic environmental compliance training provided to all affected employees, such as the managers, superintendents, supervisors, operators, and maintenance personnel in the Phosphoric Acid, SPA, FSA, and Granulation Plants.

8.2 Area Specific Employee Training

Employees within Phosphoric Acid, SPA, FSA, and Granulation Plants will receive initial training on RCRA and the Consent Decree, including the BMP, through classes and materials developed by Simplot. Employee training is part of project implementation and is found in Appendix 6 (Project Narrative & Compliance Schedules) to the Consent Decree. Detailed refresher training on the Consent Decree, including RCRA and the BMP, will be conducted for all affected employees every year. Updated training will be provided as BMP projects are completed, and will commence within two months of establishing baseline Performance Criteria under Section 7.2, and if the BMP is modified. Records of training will be maintained by the Training Department.

8.3 Contractors

The relevant portions of this BMP will be incorporated into contractors' site-specific training where appropriate.

Attachment A: Tables

Table 1. BMP Actionable Volumes

Chemical	Concentration	Non-Segregable, Semi-Segregable, & Containable Impervious (gallons)
Phosphoric Acid	Equal to or less than 28%[1]	1,100
	Greater than 28% and equal to or less than 58%	500
	Greater than 58% and equal to or less than 69%	320
SACS	5% P2O5	1,100
	5% H2SO4	1,100
Sulfuric Acid	98%	70
FSA	Greater than or equal to 23%	9

[1] Excluding Process Wastewater and Phosphogypsum Stack Wastewater.

Table 2: RCRA 8 Metals and Regulatory Limits

TCLP Metals	Toxicity Characteristic (TCLP, grab) (mg/L)	UTS for Wastewater (mg/L)	UTS for Non-Wastewater (mg/L)
Arsenic	5.0	1.4	5.0
Barium	100	1.2	21
Cadmium	1.0	0.69	0.11
Chromium (total)	5.0	2.77	0.60
Lead	5.0	0.69	0.75
Mercury	0.2	0.15	0.025
Selenium	1.0	n/a	n/a
Silver	5.0	0.43	0.14

Note 1: UTS = Universal Treatment Standards (40 C.F.R. §268.48).
Note 2: The amount of total suspended solids (TSS) by weight in the sample must be determined in order to compare the UHC concentrations to the appropriate UTS. The waste stream is a "wastewater" if it contains less than 1% by weight TSS, and "non-wastewaters" contain TSS ≥1% by weight (defined in 40 C.F.R.§268.2(d) and (f)).
Reference: 40 C.F.R. §§261.24 & 268.48

Attachment B: Acid Content Measurement on Process Wastewater System

This attachment addresses acid content measurement located in the outgoing non-segregable and semi-segregable sump streams at the Phosphoric Acid Plants. It contains information on instrument locations, alarm settings, and maintenance.

General

Acid content instruments continuously measure the acid content of the outgoing non-segregable and semi-segregable sump streams and will calculate the differential from a reference incoming Process Wastewater. The incoming Process Wastewater acid content value may be periodically measured to validate and/or update the reference number utilized in the calculation. The acid content measurement of the non-segregable and semi-segregable sump streams are displayed on the operators' distributive control system, see Figure 4 and Figure 5 below as an example.

Figure 4: Example of Acid Content Measurement Trend Stored in Data Historian

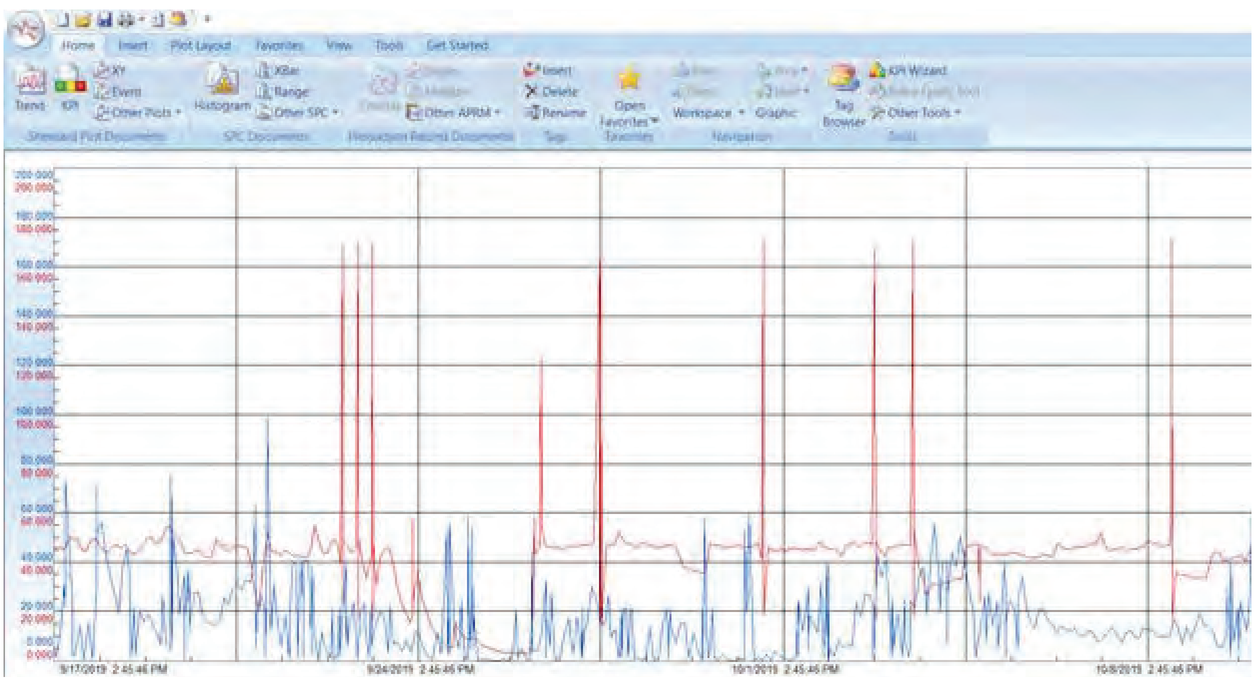
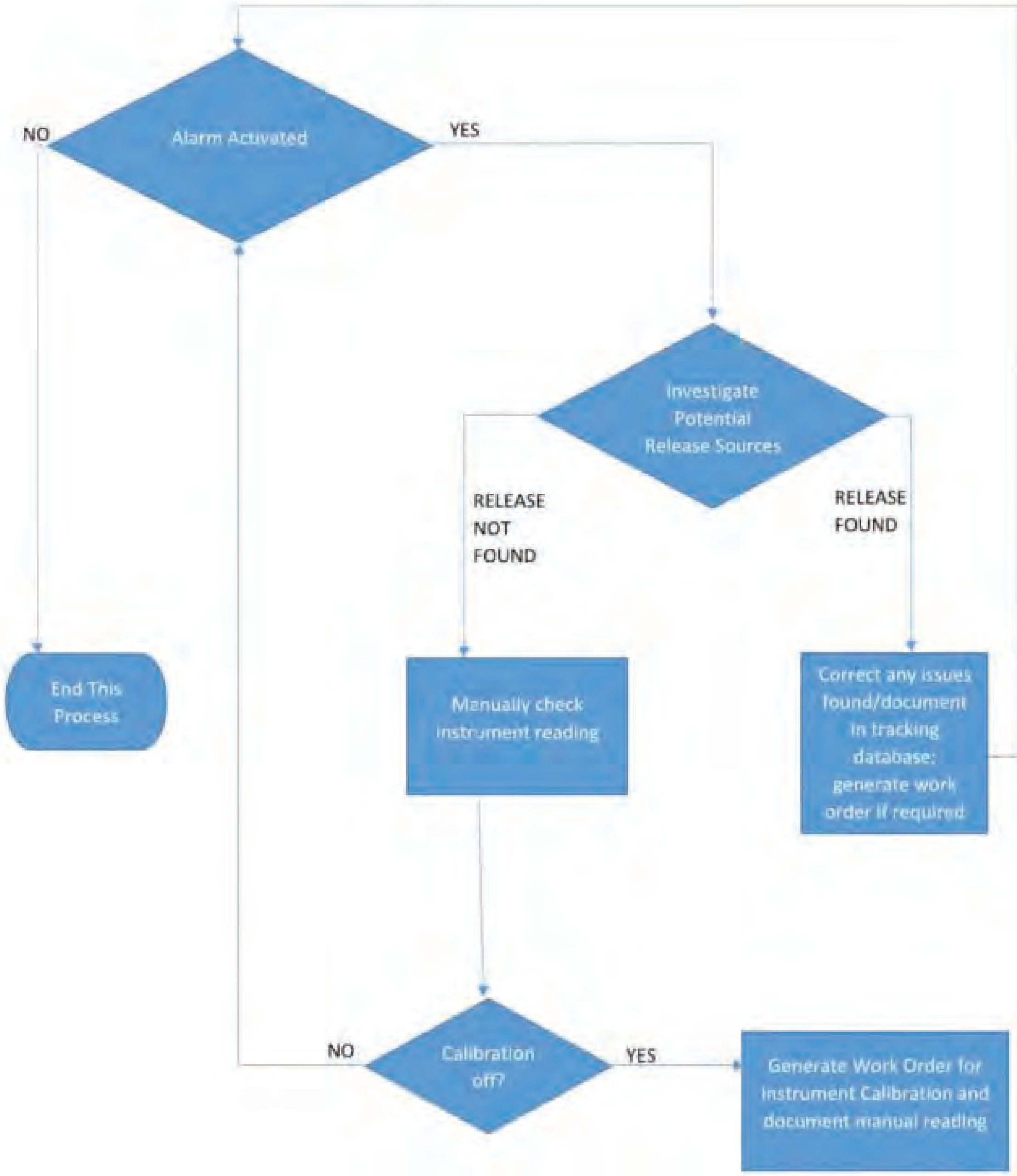


Figure 5: Example of Operator Monitoring Graphic

Figure 6: Acid Content Measurement Alarm Trigger Corrective Action Plan



Simplot AGRIBUSINESS

Acid Content Measurement Alarm Trigger Corrective Action Plan
Simplot Rock Springs
Rev 1

Figure 7: Rock Springs Acid Content Instrument Locations in Phosphoric Acid Plant

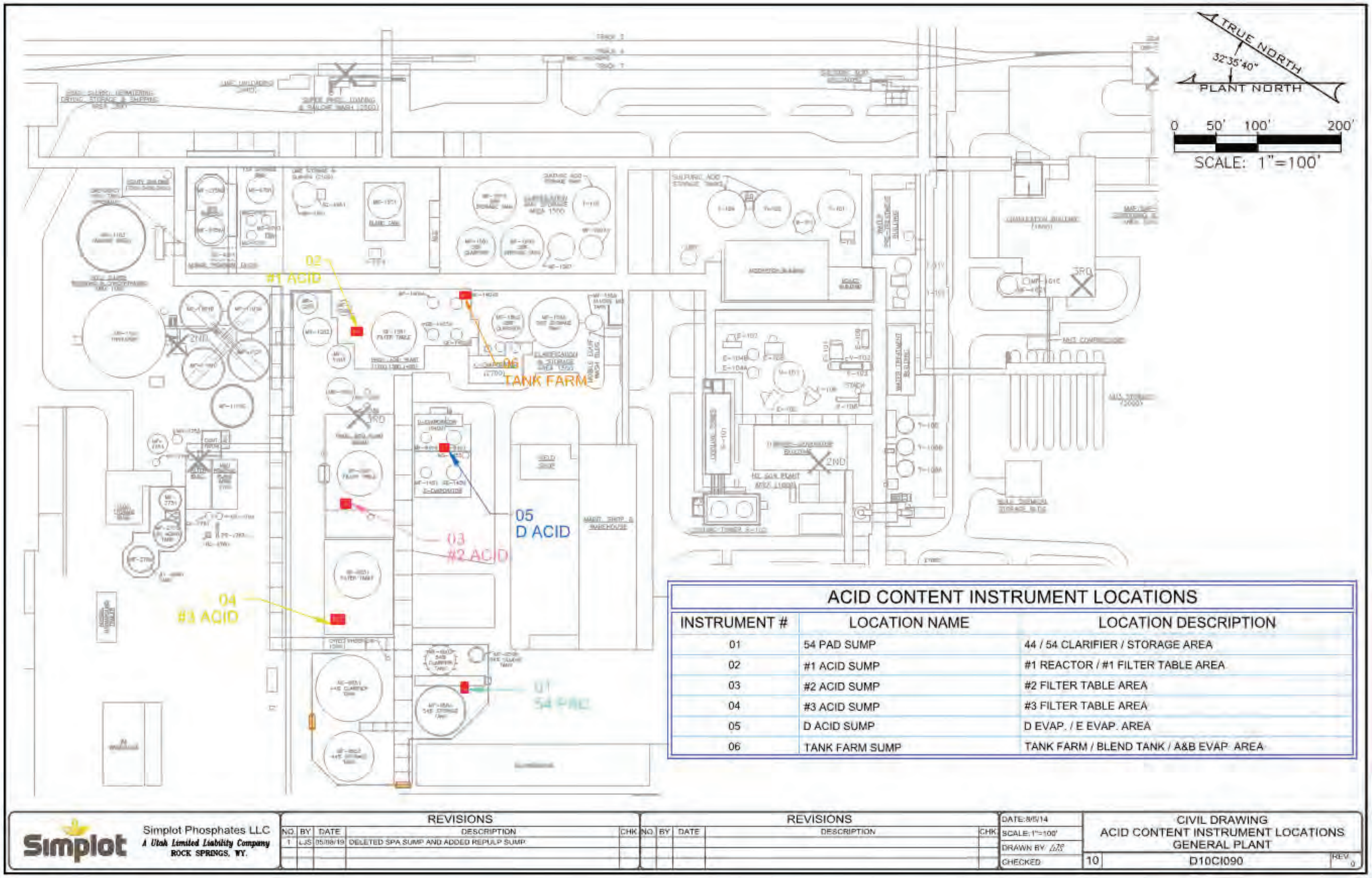


Table 1: Rock Springs Acid Content Measurement Initial Alarm Limits (Differential)

Instrument Number	Probe Location	Alarm Trigger (units mS)
01	54 Pad Sump	10
02	#1 Acid Sump	10
03	#2 Acid Sump	10
04	#3 Acid Sump	10
05	D Acid Sump	10
06	Tank Farm Sump	10

Maintenance

Simplot uses manufacturer recommended calibration procedures specific to the type of instrument. The Rock Springs Facility currently utilizes Mettler Toledo INPRO 71000I conductivity probes. The calibration methods that are being used are utilizing reference solutions to provide either a 1-point or 2-point calibration depending upon which is needed at the time. If Simplot were to switch to a different acid content monitoring instrument, manufacturer recommended calibration procedures would be utilized for that instrument.

Appendix 5.B

Inspections and Integrity of Tanks, Sumps, and Secondary Containment

Rock Springs

Final

May 13, 2020

Corporate Environmental & Regulatory Affairs
1099 W. Front St., Boise, ID 83702
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Table of Contents

I. INTRODUCTION

Simplot Phosphates LLC operates a phosphate fertilizer manufacturing facility located at 515 South Hwy 430, Rock Springs, Wyoming ("Facility"). The Facility operates and maintains process sumps ("Process Sumps") with associated pads and separate leak detection systems throughout the complex. The purpose of these Process Sumps and pads is to efficiently utilize process materials and to minimize potential environmental liabilities. See Attachment I for a list of all sumps and pads in the Facility. See Attachment IV for a map showing each of their locations within the Facility.

This program (or "Program") provides instructions for: managing the accumulation of process liquids ("Process Liquids") in Process Sumps and pads; inspecting Process Sumps and pads; and pumping process sumps and pads. This Program also provides instructions for inspection of storage tanks, as defined below. Most Process Sumps will be pumped utilizing a vacuum truck. All other sumps will be pumped utilizing other means, i.e., portable sump pumps. All Process Sumps are to be pumped down to the extent possible and visually inspected every quarter by the sump and pad team, which consists of an area production manager, an operator, applicable area shift supervisor ("Shift Supervisor") and environmental department representative. Inspections department personnel participate on an as needed basis. The sumps are prepared for inspection by the area production manager or Shift Supervisor and inspected by the sump and pad team. Any issue with the sump will be documented during the inspection, and the sump will be inspected weekly until such time the issue is resolved. If cleaning and inspecting a Process Sump is not possible for some reason, the production manager must document the reason on the sump report form.

II. OPERATING PROCEDURE

Process Sumps and pads will be managed in a manner to ensure that Process Liquids stay within the sump, pad, and associated containment areas at all times. The Facility process sumps are designed and used to handle Process Liquids and to minimize the potential for these materials to be released in to the environment. Efforts should be made to keep the Process Sumps and pads as dry as possible and minimize the liquid level in the Process Sumps.

A. General Instructions for a Sump and Secondary Containment Visual Inspection

There will be two separate inspections conducted and recorded for all Process Sumps and pads. The first inspection will be scheduled quarterly and prepared for inspection by the area production manager and then inspected by the sump and pad team. The sump checklist form will be utilized for the inspection (Attachment V). The second inspection will be completed by the inspections department after a vacuum truck operator has removed all liquids from and otherwise cleaned the Process Sump. This second inspection will be conducted whenever major plant outages, turnarounds, or other events in the Phosphoric Acid and Granulation Plant areas allow for the sumps to be drained or when the operations group or sump/pad team inspection notes a more thorough inspection is needed to identify issues with a sump. These sump inspections shall occur at least once every 5 years.

1.0 Area Operations Sump and Secondary Containment Inspections

Area production managers will schedule and prepare Process Sumps and pads for inspection. The sump and pad team will be notified of the inspection date and time. The inspections are designed to identify cracks, defects, debris, chips, leaks, holes, severe corrosion/erosion, and pluggage in the following areas:

- Pad(s)
- Process Trenches Leading to Sump
- Process Lines Leading to and from Sump
- Sump Pump and Motor
- Float Switch/Level Indicator
- Tanks and Pumps on Pad Area Leading to Sump
- Leak Detection on Double-Walled Sumps

2.0 Secondary Containment and Leak Detection Systems

If a sump or pad is designed with secondary containment, the leak detection port(s) will be opened during the quarterly inspection and checked. See Attachment II for a list of all sumps and pads with secondary containment and leak detection ports.

If liquid is noted in the leak detection port, the following procedure will be followed:

1. Measure the liquid level.
2. If possible, obtain a sample and submit to the analytical lab for analysis. All sample results will be collected by the Shift Supervisor and documented on the corresponding sump inspection form.
3. Pump out the liquid.
4. If a defect is found in the pad or secondary containment system during the course of the inspection, issue a work order immediately for pad and/or sump repair. Record the work order number on the inspection report. Work will be scheduled by the shift supervisor to correct the problem, and the repairs will be completed as soon as possible.
5. Once the work has been completed the Shift Supervisor must contact the environmental department so that they may follow up on the report with the repairs that were done. The Shift Supervisor must also notify the appropriate production manager that the work has been completed.
6. If more than five gallons of low pH (<2) liquid is found in a secondary containment system on a repetitive basis, and the source cannot be identified (i.e., no obvious leaks or cracks are observed during the monthly inspection), the production manager is responsible to assemble the necessary resources to identify and correct the problem.
7. Until the issue is resolved, a more frequent (at least weekly) inspection of the secondary containment system will be conducted. The results of these additional inspections (activities, date, volume of liquid removed, etc.) will be documented and attached to the monthly sump inspection form.

B. Tank Inspections

This section outlines the general tank inspection procedures for tanks that meet the criteria outlined in the applicability criteria ("Applicability Criteria") below. The tanks that fall under the criteria are listed in Table 1 Applicable Tanks List.

Applicability Criteria

1. Outside phosphoric acid tanks with 20% or greater concentration.
2. Outside tanks that are part of the Acid Value Recovery System.
3. Outside tanks that are part of the SPA Recovery system.

These tanks are typically inspected during scheduled cleaning events and periodically using the following criteria as a guide.

The general inspection schedule for tanks are as follows:

- Internal tank inspections are performed utilizing API 653 recommended procedures and inspection frequencies (5-10 years) as a guideline but are typically inspected more frequently during scheduled tank cleanings (1-3 years).
- External tank inspections are performed utilizing API 653 recommended procedures and inspection frequencies (5 years) as a guideline but are typically inspected more frequently during scheduled tank cleanings (1-3 years).
- Internal and external NDE / NDT inspections are conducted at recommended intervals (5-10 years) utilizing API 653 as a reference.
- External visual inspections are conducted annually utilizing API 653 as a reference.

Many of the storage tanks covered by this Program are rubber lined or coated preventing dye penetrant and ultrasonic thickness testing of the floor as described in API 653. Internal inspections of the tank do include a visual inspection, durometer testing of rubber, and/or spark testing of the rubber as the cleanliness of the rubber or coating allows. Removing minor amounts of hard scale from rubber lining or coating systems to allow for NDE/NDT internal inspections, has the potential to cause more damage to the lining or coating than the NDE/NDT may prevent, making a visual internal inspection the more prudent choice in these situations.

Table 1: Applicable Tanks List

Tank/Equipment Name	Tank No.	Type of Service Phos Acid (%)	Area
#1 Reactor	MR-1202	28	Phosphoric Acid
#2 Reactor	MR-1252	28	Phosphoric Acid
#1 28% Clarifier	MF-1501	28	Phosphoric Acid
#2 28% Clarifier	MF-1503	28	Phosphoric Acid
#1 28% Storage Tank	MF-1502	28	Phosphoric Acid
#2 28% Storage Tank	MF-1514	28	Phosphoric Acid
#3 28% Storage Tank	MF-1504	28	Phosphoric Acid
44% Clarifier Tank	MF-6551	44	Phosphoric Acid
44%/54% Sludge Tank	MF-6508	44/54 Sludge	Phosphoric Acid
54% Clarifier Tank	MF-6503	54	Phosphoric Acid
44% Storage Tank	MF-6552	44	Phosphoric Acid
54% Storage Tank	MF-6504	54	Phosphoric Acid
Sludge Pre-Mix Tank	MF-1509	44/54/SPA Sludge	Phosphoric Acid
#1 Aging Tank	MF-2788	69	SPA Plant
#2 Aging Tank	MF-2773	69	SPA Plant
#3 Aging Tank	MF-2751	69	SPA Plant
SPA Filtrate Receiver Tank	MS-2758	69	SPA Plant
SPA Sludge Tank	MF-2754	SPA Sludge	SPA Plant
SPA Shipping Tank A	MF-2759A	69	Shipping
SPA Shipping Tank B	MF-2759B	69	Shipping
54% Shipping Storage Tank	MF-2503	54	Shipping
54% Shipping Clarifier	MF-1507	54	Shipping
Granulation Mix Tank	MF-1621	44/54/SPA Sludge	Granulation
Granulation Feed Tank	MF-1610	44/54/SPA Sludge	Granulation

III. INSPECTION DOCUMENTATION

All tank inspection records are kept in the maintenance inspection department. In general, the inspection reports and supporting documentation are filed in the corresponding tank records and the two most recent inspection reports are retained for reference and verification purposes.

Results from the sump and pad inspections must be recorded on the appropriate inspection form. The area operations sump and secondary containment inspections are recorded by the sump and pad team that is performing the inspections on the *Operations Process Sump and Secondary Containment Inspection Form* (see Attachment V).

The sump and pad team representative must completely and accurately fill out the applicable inspection form(s). They must also submit any liquid samples to the analytical lab for analysis and the lab technician will put the results in the lab database. After the inspection is complete, the forms must be submitted to the production manager for approval. The production manager must follow up on any work order and record any lab analysis results on the applicable sump inspection form.

The production manager will keep one copy of the inspection report for his/her file and forward the remaining copies to the environmental department to have a copy for their record keeping purposes.

If a concern noted during the inspection relates to the integrity or functionality of a Process Sump system, immediate notification must be made to the production manager. The discrepancy must be documented on the inspection form and a list of corrective actions must be included in the “Comments” section of the form.

When a work order is written to correct the discrepancy, the work order number and the date the work order was issued must be documented in the “Comments” section of the inspection form.

IV. ENVIRONMENTAL MANAGEMENT

The plant manager and/or environmental manager must be available to assist operations and maintenance personnel in the management of this program. The environmental department will review the inspection forms and will generate an electronic summary of the inspections. The summary will be distributed quarterly to the operations, inspections and engineering departments. The Rock Springs plant sump and pad team will review this summary.

A. Quarterly Summary

The summary will be used to ensure that all pad and sump integrity concerns are addressed and funds allocated to maintain sumps and pads. The plant management team will coordinate with area production managers as well as maintenance and engineering to ensure that sump and pad projects are completed. The environmental department will provide characterization and disposal support to maintenance and engineering when planning sump or pad projects. A work order, management of change, and/or capital improvement project will be completed by appropriate personnel to address issues found during inspections.

The environmental department will retain all sump and pad reports for 2 years.

B. Program Review

The sump and pad team will ensure an annual review of this Program is conducted and verify that the written plan reflects the current management system.

The environmental department will keep a plant map identifying the location of all process sumps and pads (see Attachment IV). The environmental department will also maintain a file that identifies potential inputs into area process sumps and pads and the associated location where these input materials are reclaimed in the process (see Attachment III).

Area production managers and the engineering department will be responsible for ensuring that the environmental department is aware of any changes in area processes, sumps or pads that may change the input or location of recovery in the process.

V. TRAINING

Level I training will be implemented by the Rock Springs plant training coordinators for new operators in an applicable plant area. The environmental department will assist the Rock Springs plant training coordinators with this training and the training coordinators will maintain all associated training records.

Level II specialized training on the process sump and pad management program will be given to all personnel who will be involved in the inspection program. Level II training will be provided by the environmental department and will include specific inspection training for each sump and pad.

Specialized training will be given to storage tank inspectors within the inspections department. This training will involve training on visual and other relevant inspection techniques and known damage mechanisms for the tanks being inspected.

The environmental manager will be responsible for ensuring that the plant management team and environmental department personnel have reviewed and understand their responsibilities related to this Program.

VI. DEFINITIONS

Shift Supervisor: North or South plant supervisor on each crew.

Process Liquid: A liquid consisting of Process Wastewater, SACS, FSA, phosphoric acid, Acid Value Recovery System Effluent, non-hazardous aqueous solutions, and/or spills/leaks of phosphoric acid, sulfuric acid, and/or FSA.

Process Sump: Any pit, reservoir, trough, trench, containment structure, or drainage control system that serves to collect Process Liquids for utilization in the process.

Inspections and Integrity of Tanks, Sumps, and Secondary Containment
Attachment I

PROCESS SUMP AND PAD LIST

Area	Sump/Pad Name	Inspected
Phosphoric Acid	MT-1308 Evaporator Barometric Water Return Sump	
	MT-1311 #1 Filter Acid Sump	
	MT-1315 #1 Tank Farm Sump	
	Storm Collection System Sump	
	J-1251 #2 Reactor Sump	
	J-6401 D/E Evaporators Area Acid Sump	
	J-6501 #2 Tank Farm Sump	
	J-6352 #3 Filter Acid Sump	
	J-6301 Mustang FSR Water Collection Sump	
	J-6302 #2 Filter Acid Sump	
	J-1319 FSR Collection Sump	
	MT-2772 C Evaporator Acid Sump	
	MT-2703 C Evaporator Barometric Sump	
SPA Plant	GS-2787 Repulp Sump	
	MF-2770 SPA Acid Sump	
Ore Receiving/ Water Reclaim	Recovery Sump	
	Rock Slurry Sump	
	1-Q-1 Rock Receiving Building Sump	
	Sewage System Sump	
Sulfuric Acid	T-113 Absorber Builidng Sump & Trench	
	PP-1201 A&S Sump and Containment Area	
	PP-1214 Sump and Containment Area	
	P-182 A&S Containment Area	
	MEC Acid Sump Trench	
	T-116 Water Pretreatment Building Sump and Trench	
	T-115 Sulfuric Containment Pad	
	Sulfur Truck Unloading Pit	
	T-220 Water Treatment Building Sump and Trench	
Granulation	Granulation Sump	
Shipping	MF-2504 Car Wash Sump	
	Sulfuric Truck Loading/Unloading	
	Sulfur Truck Unloading Pit	
	Sulfur Pit	
	MF-2777 SPA Shipping Tank Sump	
	Sulfuric Railcar Sump Track #7	
	Intermediate Sulfur Loading/Unloading Pit	

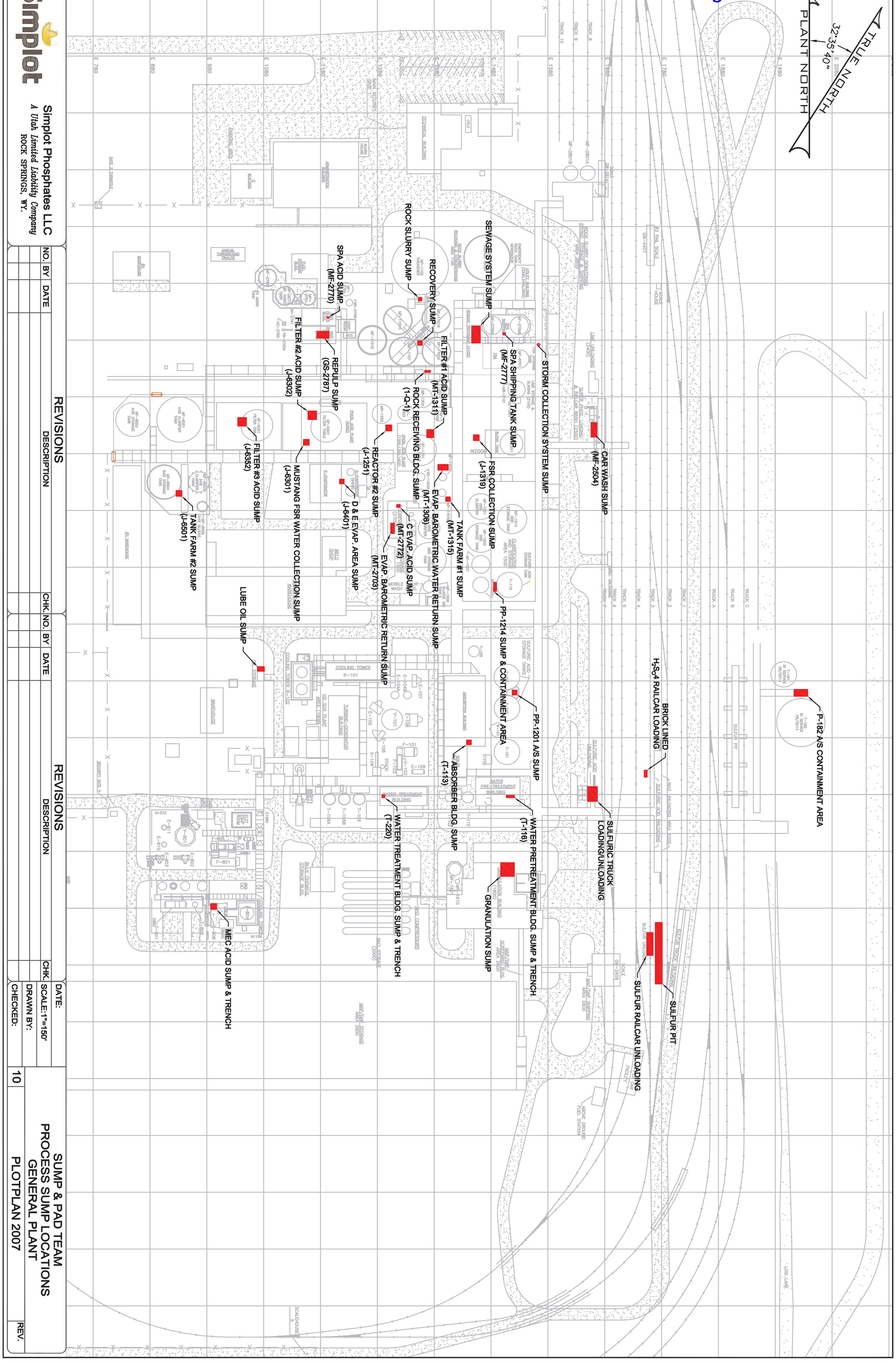
Inspections and Integrity of Tanks, Sumps, and Secondary Containment
Attachment II

PROCESS SUMP AND PAD DETAILS

AREA	SUMP/PAD NAME	SECONDARY CONTAINMENT	# OF LEAK DETECTION PORTS	JDE NUMBER
Phosphoric Acid	MT-1308 Evaporator Barometric Water Return Sump	yes	1	MT-1308
	MT-1311 #1 Filter Acid Sump	yes	1	MT-1311
	MT-1315 #1 Tank Farm Sump	yes	1	MT-1315
	Storm Collection System Sump	no		GZ-4106
	J-1251 #2 Reactor Sump	yes	1	J-1251
	J-6401 D/E Evaporators Area Acid Sump	yes	1	J-6401
	J-6501 #2 Tank Farm Sump	yes	1	J-6501
	J-6352 #3 Filter Acid Sump	yes	1	J-6352
	J-6301 Mustang FSR Water Collection Sump	no		J-6301
	J-6302 #2 Filter Acid Sump	yes	1	J-6302
	J-1319 FSR Collection Sump	yes	1	J-1319
	MT-2772 C Evaporator Acid Sump	no		MT-2772
	MT-2703 Evaporator Barometric Sump	yes	1	MT-2703
SPA Plant	GS-2787 Repulp Sump	no		GS-2787
	MF-2770 SPA Acid Sump	no		MF-2770
Ore Receiving/ Water Reclaim	Recovery Sump	no		J-1104
	Rock Slurry Sump	no		J-1107
	1-Q-1 Rock Receiving Building Sump	no		1-Q-1
	Sewage System Sump	no		GZ-4101
Sulfuric Acid	T-113 Absorber Builidng Sump & Trench	no	2	T-113
	PP-1201 A&S Sump and Containment Area	no		T-1200A
	PP-1214 Sump and Containment Area	no		T-1214
	P-182 A&S Containment Area	no		T-182S
	MEC Acid Sump Trench	no		MT-82514
	Temporary Sulfur Unloading Pit	No		T-108C
	T-115 Sulfuric Containment Pad	No		T-1214
	T-116 Water Pretreatment Building Sump and Trench	no		T-116
	T-220 Water Treatment Building Sump and Trench	no		T-220
Granulation	Granulation Sump	yes	1	MF-1623
Shipping	MF-2504 Car Wash Sump	yes	1	MF-2504
	Sulfuric Truck Loading/Unloading	no		T-1200B
	Sulfur Truck Unloading Pit	no		T-117
	Sulfur Pit	no		T-107
	MF-2777 SPA Shipping Tank Sump	no		MF-2777
	Sulfuric Railcar Sump Track #7	no		T-1200C
	Intermediate Sulfur Loading/Unloading Pit	no		T-108

PROCESS SUMP/PAD INPUT MATERIALS AND RECLAIM LOCATION

AREA	SUMP/PAD NAME	TYPICAL INPUT MATERIALS	MATERIALS RECLAIM LOCATION/PROCESS	TYPICAL LAB ANALYSIS
Phosphoric Acid	MT-1308 Evaporator Barometric Water Return Sump	phosphoric acid, condensate	Blend Tank	pH, P2O5
	MT-1311 #1 Filter Acid Sump	phosphoric acid, process water	#1 Filter Gyp Slurry Tank, #1 Tank Farm Sump	pH, P2O5
	MT-1315 #1 Tank Farm Sump	phosphoric acid, process water	Gyp Stack	pH, P2O5
	Storm Collection System Sump	Storm water	Containment Trench, #1 Tank Farm Sump	pH
	J-1251 #2 Reactor Sump	phosphoric acid, process water	#2 Filter Gypsum Slurry Tank	pH, P2O5
	J-6401 D /E Evaporators Area Acid Sump	phosphoric acid, process water	#2 Filter Gypsum Slurry Tank	pH, P2O5
	J-6501 #2 Tank Farm Sump	phosphoric acid, process water	#2 Filter Gypsum Slurry Tank, #3 Filter Gypsum Slurry Tank	pH, P2O5
	J-6352 #3 Filter Acid Sump	phosphoric acid, process water	#3 Filter Acid Sump	pH, P2O5
	J-6301 Mustang FSR Water Collection Sump	Process water, phosphoric acid	#2 & #3 Filter Vacuum Pump Scrubbers, #2 Reactor Vacuum Pump, 3# Filter Vacuum Pump Seal Water, Fume Scrubbers, #2 Filter Gyp Slurry Tank	pH, P2O5
	J-6302 #2 Filter Acid Sump	Process water, phosphoric acid	#2 Filter Gyp Slurry Tank	pH, P2O5
	J-1319 FSR Collection Sump	phosphoric acid, process water	A/B Evap Secondary Scrubber, C-Evap Acid Cooler Tank, C-Evap FSA Recirc Tank, #1 Filter Vacuum Scrubber	pH, P2O5
	MT-2772 C Evaporator Acid Sump	Process water, phosphoric acid	#1 28% Clarifier	pH, P2O5
	MT-2703 Evaporator Barometric Return Sump	Process water, phosphoric acid	C FSA Tank	pH, P2O5
SPA Plant	GS-2787 Repulp Sump	phosphoric acid, process water	Sludge Tank, Phos Pre-Mix Tank, Filter Feed Tanks	pH, P2O5
	MF-2770 SPA Acid Sump	Process water, phosphoric acid	Repulp Sump, Scrubber Water Tank, Hot Water Pond Line	pH, P2O5
Ore Receiving/ Water Reclaim	Recovery Sump	Ore	Rock Slurry Thickener Tank	pH, P2O5
	Rock Slurry Sump	Ore	Rock Slurry Thickener Tank	pH, P2O5
	1-Q-1 Rock Receiving Building Sump	Ore	Recovery Tank	pH, P2O5
	Sewage System Sump	Raw Sewage, Sodium Hypochlorite	#1 Filter Gyp Slurry Tank	
Sulfuric Acid	T-113 Absorber Builidng Sump & Trench	Sulfuric Acid		pH, Sulfuric Acid
	PP-1201 A&S Sump and Containment Area	Sulfuric Acid		pH, Sulfuric Acid
	PP-1214 Sump and Containment Area	Sulfuric Acid		pH, Sulfuric Acid
	P-182 A&S Containment Area	Sulfuric Acid		pH, Sulfuric Acid
	MEC Acid Sump Trench	Sulfuric Acid		pH, Sulfuric Acid
	Sulfur Truck Unloading Pit			
	T-116 Water Pretreatment Building Sump and Trench	Sulfuric Acid		pH, Sulfuric Acid
	T-220 Water Treatment Building Sump and Trench	Sulfuric Acid		pH, Sulfuric Acid
	T-115 Sulfuric Containment Pad			pH, Sulfuric Acid


Simplot
Simplot Phosphates LLC
A Utah Limited Liability Company
ROCK SPRINGS, WY.
REVISIONS
NO. BY DATE DESCRIPTION CHK.
DATE:
SCALE:1"=150'
DRAWN BY:
CHECKED:
10
SUMP & PAD TEAM
PROCESS SUMP LOCATIONS
GENERAL PLANT
PLOTPLAN 2007
REV.
TRUE NORTH
PLANT NORTH
32°35'40"
SEWAGE SYSTEM SUMP
ROCK SLURRY SUMP
RECOVERY SUMP
SPA ACID SUMP (MF-2770)
FILTER #2 ACID SUMP (J-6302)
REPULP SUMP (GS-2787)
FILTER #1 ACID SUMP (MT-1311)
ROCK RECEIVING BLDG. SUMP (1-Q-1)
SPA SHIPPING TANK SUMP (MF-2777)
STORM COLLECTION SYSTEM SUMP
CAR WASH SUMP (MF-2504)
FSR COLLECTION SUMP (J-1319)
REACTOR #2 SUMP (J-1251)
EVAP. BAROMETRIC WATER RETURN SUMP (MT-1308)
TANK FARM #1 SUMP (MT-1315)
C EVAP. ACID SUMP (MT-2772)
EVAP. BAROMETRIC RETURN SUMP (MT-2703)
D & E EVAP. AREA SUMP (J-6401)
MUSTANG FSR WATER COLLECTION SUMP (J-6301)
FILTER #3 ACID SUMP (J-6352)
TANK FARM #2 SUMP (J-6501)
LUBE OIL SUMP
PP-1214 SUMP & CONTAINMENT AREA
PP-1201 A/S SUMP
ABSORBER BLDG. SUMP (T-113)
WATER PRETREATMENT BLDG. SUMP & TRENCH (T-116)
WATER TREATMENT BLDG. SUMP & TRENCH (T-220)
GRANULATION SUMP
MEC ACID SUMP & TRENCH
SULFURIC TRUCK LOADING/UNLOADING
BRICK LINED H_2SO_4 RAILCAR LOADING
P-182 A/S CONTAINMENT AREA
SULFUR PIT
SULFUR RAILCAR UNLOADING
COOLING TOWER

Operations Quarterly Process Sump and Secondary Containment Inspection Form

Sump/Pad Name:	Inspection Date:
Area:	Employee name:

I. Process Sump Inspection Items

Check each item after inspectin. If an item does not apply, write "N/A" in the check box. Make note of any leaks, defects, debris, holes, cracks, chips, pluggage, severe corrosion/erosion, or other problems in each observation section.

	Inspection Item	Check	Observations
1	Pad(s)		
2	Process trenches leading to sump		
3	Process lines leading to and from sump		
4	Sump pump and motor		
5	Float switch/Level indicator		
6	Tanks and pumps leading to sump		
7	Leak detection on double walled sumps		

Additional Observations:

II. Secondary Containment and Leak Detection

Enter the requested information below. For those items that do not apply, write "N/A" in the space provided.

1	Secondary Containment? (Y/N)		6	Liquid Pumped Out? (Y/N)	
2	Leak Detection Port? (Y/N)		7	Estimated Volume of Liquid: (Gallons)	
3	Liquid Found? (Y/N) - If		8	Sample submitted to lab? (Y/N)	
4	Measured Liquid Level: Inches		9	Sample results attached? (Y/N)	
5	Liquid Sample Taken? (Y/N)				

Additional Observations:

Note: If liquid is found in secondary containment, the liquid must be pumped and sampled

III. Comments

Include all corrective actions, work order numbers, and other pertinent information that applies. Appropriate personnel to sign form once all applicable corrective actions have been completed.

Comments:	
	Area Shift Supervisor
	Area Superintendent
	Environmental Department

Simplot AGRIBUSINESS

Storage Tank External Inspection Checklist

Tank Name: ____________________ Equipment #: __________ Date: __________

Diameter: __________ Height: __________ Specific Gravity: __________

Floor Nominal: ______________ Bottom Course Nominal: ______________

T-min Floor: ______________ T-min Bottom Course ______________

Material of Const. Floor and Shell: __________ Type of Rubber Liner: __________

Inspector: ____

Name License # Signature Date

Approved: ____

Name Title Signature Date

Background:

External Checklist:

Inspection Item	Status	Comments
Is tank exterior free of leaks, corrosion or cracks?		
Is tank shell free of noticeable denting, distortions, buckling or bulging?		
Is exterior coating or paint in good working condition		
Is aboveground piping (valves, fittings, connections, pumps, etc.) free of visible leaks?		
Are ladders/platforms/walkways secure with no sign of damage?		
Concrete pad or ring wall free of cracking or spalling?		
Tank supports in satisfactory condition		
Are leak detection ports open and clean?		
Water able to drain away from tank?		
Grounding strap between tank and Foundation in good condition?		
Is containment structure in satisfactory condition?		
Insulation		
Inspection Item	**Status**	**Comments**
Free of missing insulation?		
Insulation free of noticeable areas of moisture?		

Insulation free of visible signs of damage?		
Insulation adequately protected from water intrusion?		

Conclusion/Recommendations:

Repair Items		
Item	**Description**	**Repair Number**
1		

Figure 1-*Repairs*

Figure 2- Completed *Repairs*

Storage Tank Internal Inspection Checklist

Tank Name: ____________________ Equipment #: __________ Date: __________

Diameter: __________ Height: __________ Specific Gravity: __________

Floor Nominal: ______________ Bottom Course Nominal: ______________

T-min Floor: ______________ T-min Bottom Course ______________

Material of Const. Floor and Shell: __________ Type of Rubber Liner: __________

Inspector: ____

Name License # Signature Date

Approved: ____

Name Title Signature Date

Background:

External Checklist:

Inspection Item	Status	Comments
Is tank exterior free of leaks, corrosion or cracks?		
Is tank shell free of noticeable denting, distortions, buckling or bulging?		
Is exterior coating or paint in good working condition		
Is aboveground piping (valves, fittings, connections, pumps, etc.) free of visible leaks?		
Are ladders/platforms/walkways secure with no sign of damage?		
Concrete pad or ring wall free of cracking or spalling?		
Tank supports in satisfactory condition		
Are leak detection ports open and clean?		
Water able to drain away from tank?		
Grounding strap between tank and Foundation in good condition?		
Is containment structure in satisfactory condition?		
Insulation		
Inspection Item	**Status**	**Comments**
Free of missing insulation?		
Insulation free of noticeable areas of moisture?		

Insulation free of visible signs of damage?		
Insulation adequately protected from water intrusion?		

Internal Checklist:

Inspection Item	Status	Comments
Inspect the shell to floor weld		
Inspect the floor Lapp Welds		
Locate Voids under the floor		
Inspect all reinforcing pads under pipe supports		
Check floor for pitting and corrosion		
Inspect shell seam welds		
Inspect nozzle and manway to shell welds		
Inspect shell for pitting and corrosion		
Inspect Baffle to shell welds		
Inspect baffle supports		
Inspect baffles for thinning and corrosion		
Inspect mixer blades and shaft		
Inspect mixer bolts		
Inspect mixer hub and key way		
Rubber Liner		
Inspection Item	**Status**	**Comments**
Visually inspect coating adhesion		
Visually inspect for tears or delamination		
Durometer on Rubber Lining		

Conclusion/Recommendations:

Repair Items		
Item	**Description**	**Repair Number**
1		

Figure 1-*Repairs*

Figure 2- Completed *Repairs*

Appendix 6

RCRA Project Narrative and Compliance Schedule

Appendix 6
RCRA Project Narrative & Compliance Schedule

Rock Springs

Final

May 15, 2020

Corporate Environmental & Regulatory Affairs
1099 W. Front St., Boise, ID 83702
(208) 780-7303

Table of Contents

The following project timelines provide a general plan for completion of the compliance projects ("Compliance Projects") required by the Consent Decree. The length of time required is influenced by engineering requirements, permitting and approvals, equipment lead times, a limited seasonal construction window, coordination with plant turnarounds, training development, and coordination with employee work schedules.

1 Project 1: Acid Value Recovery & Wash Solution System in Phosphoric Acid Plant

The Acid Value Recovery System and wash solution system in the phosphoric acid plant ("Phosphoric Acid Plant") project will install new tank(s) and/or modify an existing tank, pumps, piping and controls to enable Simplot to recover the value of cleaning wastes or other materials as designated in the Facility Report. In addition, the Acid Value Recovery System will enable Simplot to recover spills and leaks in containable impervious areas and semi-segregable areas. The Acid Value Recovery System effluent must be reused as identified in the Facility Report.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Simplot's signature of the Consent Decree:

- Engineering/Development of project — month 16
- Permitting with Regulatory Agency — month 28
- Detailed Design — month 30
- Project Approval — month 33
- Initiate Field Construction (site prep, foundation) — month 38
- Tank Fabrication Initiated — month 47
- Tank Fabrication Completion — month 57

Completion: The following dates are enforceable dates upon which, following the date of Simplot's signature of the Consent Decree, Simplot must complete construction and implement Project 1:

- Project Completion — month 66
- Start-up and Documentation of Training Completion — month 70

2 Project 2: Recovery System Return Piping

The recovery system return piping ("Recovery System Return Piping") project will install new piping to enable Simplot to: (1) clean phosphoric acid lines from the Phosphoric Acid Plant up to Granulation and SPA and return those cleaning wastes or other materials to the Acid Value Recovery System; (2) clean SPA Recovery Units and Acid Value Recovery Units and return those cleaning wastes or other materials to the Acid Value Recovery System and/or direct to Upstream Operations/Mixed-Use Units ; (3) clean the FSA system and return those cleaning wastes or other materials to the Acid Value Recovery System; (4) recover other materials from SPA Recovery Units and Acid Value Recovery Units and return those materials to the Acid Value Recovery System or direct to Upstream Operations/Mixed-Use Units as designated in the Facility Report and/or direct to Granulation; and (5) recover high acid content material from semi-segregable sumps to the Acid Value Recovery Tank and/or to a phosphoric acid storage tank as designated in the Facility Report. Upon completion, the Recovery System Return Piping will be operated in association with the Acid Value Recovery System as identified in the Facility Report.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Simplot's signature of the Consent Decree:

- Engineering/Development of project month 16
- Detailed Design month 30
- Project Approval month 33
- Initiate Field Construction month 38

Completion: The following dates are enforceable dates upon which, following the date of lodging the Consent Decree, Simplot must complete construction and implement Project 2:

- Project Completion month 66
- Start-up and Documentation of Training Completion month 70

3 Project 3: Granulation Recovery & Wash Solution System in Granulation Plant

The Granulation Recovery System and wash solution system in the Granulation plant is already installed and operational at the Simplot Rock Springs Facility.

4 Project 4: Upgrade Granulation Plant Pads and Sumps as Needed

Simplot will modify or install, as needed, containment pads and sumps in the Granulation plant to improve the capture of spills, leaks, and cleaning solution so materials may be returned to the Granulation process via the Granulation Recovery System, as identified in the Facility Report. During the initial baseline performance period described in Appendix 5.A, Simplot will evaluate if improvements are needed for Granulation plant containment pads and sumps.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Simplot's signature of the Consent Decree:

- Review of existing spill/leak capture — month 0
- Decision if upgrades needed — month 12

The following milestones apply only if it is decided upgrades are needed:

- Engineering/Development of project, if needed — month 24
- Permitting with Regulatory Agency — month 36
- Detailed Design — month 42
- Project Approval — month 45
- Initiate Field Construction — month 50
- Project Completion — month 64

5 Project 5: Relocate Lime Slaker

The lime slaker system is currently located in a prime location for Acid Value Recovery Units to facilitate segregated recovery of wash and spill/leak material. The lime slaker will be relocated in order to free up the space for other tanks to be located in this area. The lime slaker will be located outside of any Phosphoric Acid Plant sump collection areas.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Simplot's signature of the Consent Decree:

- Engineering/Development of project — month 6
- Detailed Design — month 12
- Project Approval — month 15
- Initiate Field Construction — month 20

Completion: The following dates are enforceable dates upon which, following the date of Simplot's signature of the Consent Decree, Simplot must complete construction and implement Project 5:

- Project Completion — month 32
- Start-up and Documentation of Training Completion — month 36

6 Project 6: Relocate 54% Shipping Clarifier & 54% Shipping Tank

The 54% Shipping Clarifier and the 54% Shipping Tank will be relocated or new tanks will be built in a new location and the old tanks will be demolished. The two tanks will be located near the FSA Storage Tank. These tanks will be placed within a newly built, secondary impervious containment area. All associated pumps and piping will also be relocated to the new tank location. The transfer line from the 54% Shipping Tank to rail and truck loadout that is identified in Figure 9 and Table 4 of the Facility Report will be re-routed and shortened due to the tank relocation. The new transfer piping configuration will be similar to the FSA to Truck and Rail Loadout Transfer Line shown in Figure 10 of the Facility Report. This project allows for the segregation of the Acid Value Recovery designated tank away from the #1 Tank Farm semi-segregable area. Once the existing tanks have been removed the containment for the area will be rebuilt.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Simplot's signature of the Consent Decree:

- Engineering/Development of project — month 12
- Permitting with Regulatory Agency — month 24
- Detailed Design — month 30
- Project Approval — month 33
- Initiate Field Construction (site prep, foundation) — month 37
- Tank Fabrication/Relocation Initiated — month 47
- Tank Fabrication/Relocation Completion — month 55
- Containment Rebuild — month 65

Completion: The following dates are enforceable dates upon which, following the date of Simplot's signature of the Consent Decree, Simplot must complete construction and implement Project 6:

- Project Completion — month 66
- Start-up and Documentation of Training Completion — month 70

7 Project 7: Relocate Sulfuric Storage Tank (T-115)

The Sulfuric Storage Tank (T-115) will be relocated or a new tank will be built in a new location. The Sulfuric Storage Tank will be located near the T-104 Sulfuric Acid Storage Tank, removing all sulfuric acid storage tanks from the #1 Tank Farm semi-segregable area. All associated pumps and piping will also be relocated with the new tank location.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Simplot's signature of the Consent Decree:

- Engineering/Development of project month 12
- Permitting with Regulatory Agency month 24
- Detailed Design month 30
- Project Approval month 33
- Initiate Field Construction (site prep, foundation) month 37
- Tank Fabrication/Relocation Initiated month 47
- Tank Fabrication/Relocation Completion month 55

Completion: The following dates are enforceable dates upon which, following the date of Simplot's signature of the Consent Decree, Simplot must complete construction and implement Project 7:

- Project Completion month 66
- Start-up and Documentation of Training Completion month 70

8 Project 8: BMP Training

Site-specific RCRA and BMP training will be developed and implemented for all affected employees, maintenance personnel, and contractors in the Phosphoric Acid and Granulation plants, along with Facility management, and others who manage waste streams covered by the CD.

Milestones: The following milestones provide a general plan for the start of each phase counting from the date of Simplot's signature of the Consent Decree:

- Develop Training month 0
- Initiate Training month 3

Completion: The following dates are enforceable dates upon which, following the date of Simplot's signature of the Consent Decree, Simplot must complete construction and implement Project 8:

- Training Completion month 9

Appendix 7

Alternative Liner Demonstration

APPENDIX 7
PHOSPHOGYPSUM STACK SYSTEM ALTERNATIVE LINER REQUIREMENTS

Simplot Rock Springs Wyoming

Appendix 1 of this Consent Decree sets forth requirements for lining the Phosphogypsum Stack System within five years of the Effective Date of this Consent Decree as a means of reducing or eliminating contamination migrating from such Phosphogypsum Stack System. The Phosphogypsum Stack System at the Rock Springs Facility was permitted by the State of Wyoming and built with a synthetic liner. Expansions of the Phosphogypsum Stack have been and continue to be subject to approval by the State of Wyoming, under Chapters 3 and 11 of the Wyoming Water Quality Rules and Regulations. The most recent permit for expansion of the Phosphogypsum Stack is found in Appendix 7, Attachment A.

This Appendix identifies the specific Phosphogypsum Stack System or Components thereof that, subject to the terms of the Consent Decree (including Paragraph 25(a) and (b)), EPA has determined either meet the Liner design standards of Appendix 1.B. Section VI, or are considered an acceptable alternative to those standards. Attachment B of this Appendix shows the impoundments at the Rock Springs Facility, including those impoundments that are considered Components of the Phosphogypsum Stack System. These impoundments (Figure 3) are:

Phosphogypsum Stack

The existing Phosphogypsum Stack has a lining system consisting of a 16 oz. non-woven polypropylene geotextile overlaid on the graded and compacted soil surface with an 60 or 80 mil thick high density polyethylene (HDPE) Liner installed over the geotextile. For the expansions of the Phosphogypsum Stack that have been done, the new Liner is double-fused to the existing Liner and continuously double-fused together for the entire surface area to form an impermeable barrier to leakage.

Return Pond

The Return Pond is a Component of the Phosphogypsum Stack System. Process Wastewater from the Phosphogypsum Stack decants/flows into the Return Pond, from there it is returned to the phosphoric acid manufacturing process. The Return Pond, like the Phosphogypsum Stack, has a lining system of non-woven polypropylene geotextile overlaid on the graded and compacted soil surface with an 80 mil thick HDPE.

Auxiliary Fresh Water Storage Pond

This HPDE lined (60-mil.) pond holds fresh water for use in the phosphoric acid manufacturing process. No Process Wastewater is kept in this pond and this pond is not a Component of the Phosphogypsum Stack System.

Fresh Water Cooling Pond

This HPDE lined pond holds cooling water from indirect heat exchangers in the phosphoric acid manufacturing process. No Process Wastewater is kept in this pond and this pond is not a Component of the Phosphogypsum Stack System.

On November 14, 2019, Simplot submitted a document to EPA titled "Alternative Liner Demonstration, Expansion of the Rock Springs Phosphogypsum Stack System, J.R. Simplot Company, Rock Springs, Wyoming" (Attachment C of this Appendix, or "Demonstration Report"). This Demonstration Report has an alternate means of meeting the liner requirements in Appendix 1.B and Paragraph 25(b) of the Consent Decree for the expansion of the existing Phosphogypsum Stack or the construction of a new Phosphogypsum Stack. EPA's acceptance of the Demonstration Report for this purpose does not necessarily bind the EPA to the factual assertions and conclusions of the Demonstration Report.

Wyoming Department of Environmental Quality
Water Quality Division
PERMIT TO CONSTRUCT

PERMIT NO. 18-365

RE: Simplot Phosphates, LLC – Phosphogypsum Stack Area Expansion - Sweetwater County, Sections 8, 9 and 16, T18N, R104W, Lat: 41.547778, Long:-109.149722

This permit hereby authorizes the permittee Bret Pizzato, Simplot Phosphates, LLC, 515 South Highway 430, Rock Springs, WY 82901 to construct the first phase of a phosphogypsum stack disposal area expansion consisting of about 180 acres of clearing and grubbing, grading, and earthwork operations according to the procedures and conditions of this permit. The facility is located at the legal description and latitude/longitude listed above about 4.5 miles southeast of the City of Rock Springs, WY in Sweetwater County, in the State of Wyoming. Complete all construction, installation, or modification allowed by this permit by January 18, 2024.

The issuance of this permit confirms that the Wyoming Department of Environmental Quality (DEQ) Water Quality Division (WQD) has evaluated the application submitted by the permittee and determined that it meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the engineer's design are the responsibility of the permittee, owner, and operator.

Granting this permit does not imply that WQD guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements. Compliance with discharge standards remains the responsibility of the permittee.

Nothing in this permit constitutes an endorsement by WQD of the construction or the design of the facility described herein. This permit verifies only that the submitted application meets the design and construction standards imposed by Wyoming statutes, rules and regulations. The DEQ assumes no liability for, and does not in any way guarantee or warrant the performance or operation of the permitted facility. The permittee, owner and operator are solely responsible for any liability arising from the construction or operation of the permitted facility. By issuing this permit, the State of Wyoming does not waive its sovereign immunity.

The permittee shall allow DEQ personnel and their invitees to enter the premises where the facility is located, or where records are kept under the conditions of this permit, and collect resource data as defined by Wyoming Statute § 6-3-414, inspect and photograph the facility, collect samples for analysis, review records, and perform any other function authorized by law or regulation. The permittee shall secure and maintain such access for the duration of the permit.

If the facility is located on property not owned by the permittee, the permittee shall also secure and maintain from the landowner upon whose property the facility is located permission for DEQ personnel and their invitees to enter the premises where a regulated facility is located, or where records are kept under the conditions of this permit, and collect resource data as defined by Wyoming Statute § 6-3-414, inspect and photograph the facility, collect samples for analysis, review records, and perform any other function authorized by law. The permittee shall secure and maintain such access for the duration of the permit.

If the facility cannot be directly accessed using public roads, the permittee shall also secure and maintain permission for DEQ personnel and their invitees to enter and cross all properties necessary to access the facility. The permittee shall secure and maintain such access for the duration of the permit.

The permittee shall maintain in its records documentation that demonstrates that the permittee has secured permission for DEQ personnel and their invitees to access the permitted facility, including (i) permission to access the land where the facility is located, (ii) permission to collect resource data as defined by Wyoming Statute § 6-3-414, and (iii) permission to enter and cross all properties necessary to access the facility if the facility cannot be directly accessed from a public road. The permittee shall also maintain in its records a current map of the access route(s) to the facility and contact information for the owners or agents of all properties that must be crossed to access the facility. The permittee shall ensure that the documentation, map, and contact information are current at all times. The permittee shall provide the documentation, map, and contact information to DEQ personnel upon request. On closure of a facility, the permittee shall maintain such records for a period of five (5) years.

Nothing in this permit precludes the institution of any legal action or other proceeding to enforce any applicable provision of law or rules and regulations. It is the duty of the permittee, owner and operator to comply with all applicable federal, state and local laws or regulations in the exercise of its activities authorized by this permit.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

The permittee shall construct and operate the permitted facility in accordance with the statements, representations, procedures, terms and conditions of the permit application, supporting documents and permit. This permit does not relieve the permittee from any duty to obtain any other permit or authorization that may be required by any provision of federal, state or local laws.

In carrying out its activities authorized by this permit, the permittee, owner and operator shall comply with all of the following permit conditions:

1 of 4. The permittee will immediately notify WQD of any changes or modifications, which are not consistent with the terms and conditions of this permit. Submit oral or written notice to the Wyoming Water Division, Southwest District Engineer, mark.baron@wyo.gov, 510 Meadow View Drive, Lander, WY 82520, 307-332-3144, 307-332-7726 (fax), in accordance with the provisions of Section 11, Chapter 3, Wyoming Water Quality Rules and Regulations

2 of 4. The permittee will submit a Certificate of Completion signed by the engineer of record or the owner to the engineer listed above within sixty (60) days of completing the construction of the authorized facility. A form titled "Certificate of Completion" is available on the WQD Construction Permitting website.

3 of 4. DEQ bases the review and approval of this permit upon the items identified in the attached "Statement of Basis".

4 of 4. This facility is permitted to only receive phosphogypsum wastewater and waste solids from Simplot Phosphates.

AUTHORIZED BY:

Kevin Frederick, Administrator
Water Quality Division

Todd Parfitt, Director
Department of Environmental Quality

February 4, 2019
Date of Issuance

TP/KF/RRC/MDB/SG

STATEMENT OF BASIS

1. Permit Number: **18-365**

2. Application reviewed for compliance with the following regulations:

   Chapters 3 and 11 of the Wyoming Water Quality Rules and Regulations.

3. Does the permit comply with all the applicable regulations identified above?

   Yes

   The proposed phosphogypsum stack area expansion is to be constructed in phases. This Permit to Construct, covers the first phase of construction which consists of preparing the 180 acre site for the installation of a synthetic liner. The second phase of construction will consist of the installation of either an 80 mil high density polyethylene liner or an 80 mill linear low density polyethylene liner.

4. If a Chapter 3, Section 17 review is required, indicate how WQD will determine that the permittee will protect groundwater quality.

   A Chapter 3, Section 17 review is required. Chapter 3, Section 17 (a) states that – Documentation that the facility poses no threat of discharge to groundwater. If an applicant proposes a facility of this nature and can provide the documentation, a subsurface investigation is not required. The documentation shall consist of data which demonstrates that: (i) Facility construction will not allow a discharge to groundwater by direct or indirect discharge, percolation or filtration. Under the second phase of construction the installation of a either an 80 mil high density polyethylene liner or an 80 mill linear low density polyethylene liner between the phosphogypsum stack and the underlining soil will protect the groundwater quality.

   Permits to Construct 06-606, 97-094, 95-041, 90-121, 86-123 and 85-075 cover the existing phosphogypsum stack construction and groundwater monitoring. Currently four groundwater monitoring wells near the phosphogypsum storage area are sampled and tested for various constituents quarterly (the water level in monitoring well B1 is generally too low to sample). The test results from the quarterly sampling are mailed to the Lander WDEQ Office.

   A second set of groundwater monitoring wells have been constructed through a Permit by rule. It has been suggested to Simplot that an updated monitoring program include both the older groundwater monitoring wells and new monitoring wells. The new groundwater monitoring wells came about as part of an Administrative Order on Consent between Simplot Phosphates and the USEPA. In July 2012, after the RCRA 3013 AOC (Docket No. RCRA 08-2012-0004) was signed, groundwater monitoring was expanded to all six existing functional groundwater monitoring wells: PZ-B2, PZ-B3, PZ-B4, PZ-B6, PZ-B8, and PZ-B9 (PZ-B1 has not contained sufficient water to sample since March 1987). Additional groundwater investigation was conducted under the RCRA 3013 AOC from June to September 2013 and included the drilling, installation and sampling of 39 new monitoring wells at 15 boring locations around the facility along with the collection of soil, sediment, surface water and groundwater samples. These data results are described in detail in the Sampling and Analysis Report (Formation, 2014).

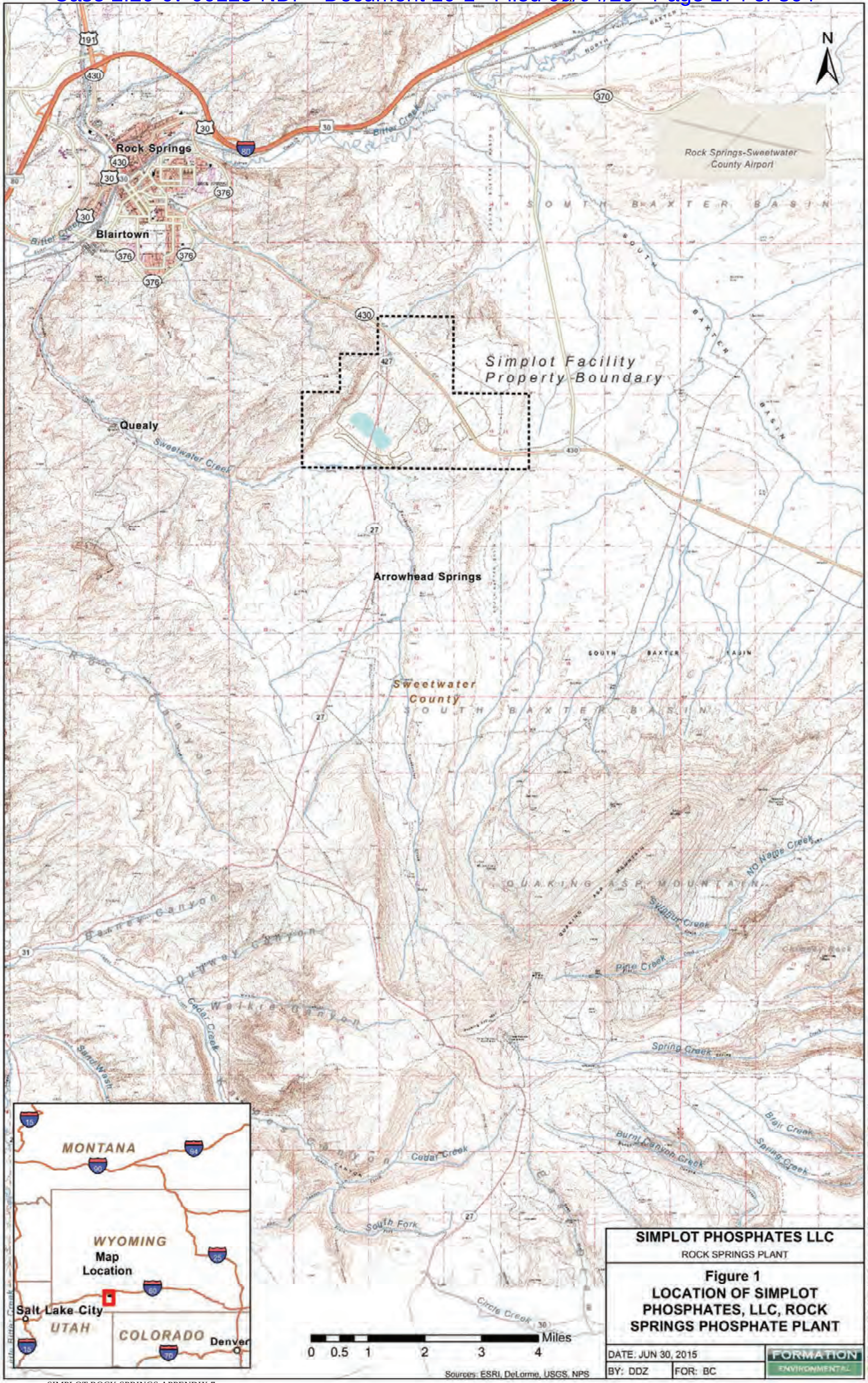
5. Documentation of Statement of Basis: The archive file for this permit includes adequate documentation of all sections of this Statement of Basis.

CERTIFICATION

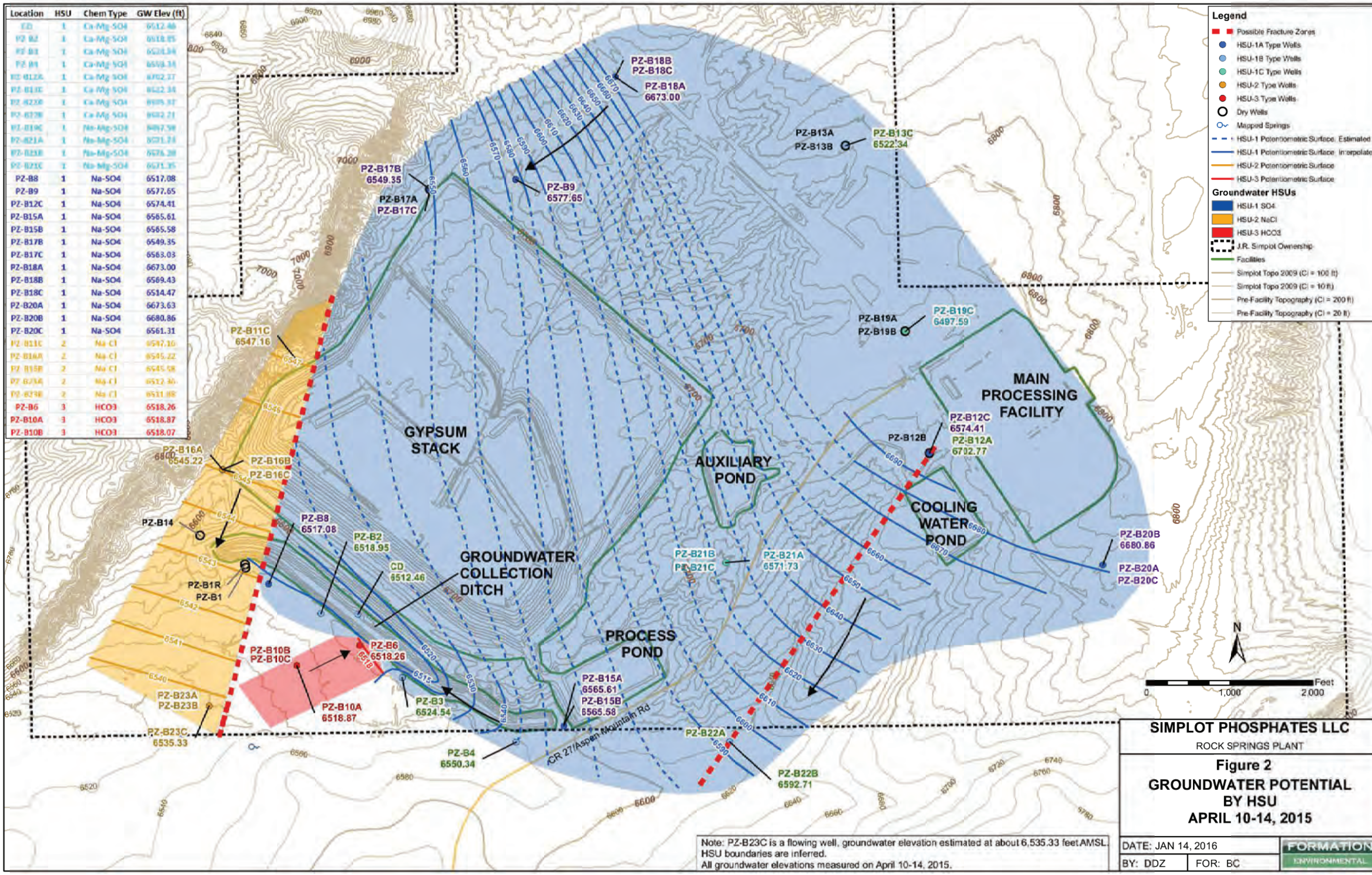
DEQ issued this permit is based upon a review of the application package submitted in accordance with the requirements of Chapter 3, Section 6, Wyoming Water Quality Rules and Regulations. Mark D. Baron, P.E., mark.baron@wyo.gov, Southwest District Engineer, completed this review on January 18, 2019. DEQ recommends issuing this permit based upon the statements, representations and procedures presented in the permit application and supporting documents, permit conditions, and the items identified in this "Statement of Basis."

XC: Daniel Kennedy, P.E., JFC Engineers & Surveyors, P.O. Box 2026, Rock Springs, WY 82901

PDF: mark.baron@wyo.gov (Subject Line - Permit to Construct – 18-365 – Simplot Phosphogypsum Area Expansion – Sweetwater County)


N
Rock Springs
Blairtown
Rock Springs-Sweetwater County Airport
SOUTH BAXTER BASIN
Simplot Facility Property Boundary
Quealy
Sweetwater Creek
Bitter Creek
Arrowhead Springs
Sweetwater County
QUAKING ASP MOUNTAIN
No Name Creek
Sulphur Creek
Pine Creek
Spring Creek
Burnt Canyon Creek
Blair Creek
Cedar Creek
South Fork
Circle Creek
Sand Wash
MONTANA
WYOMING
Map Location
Salt Lake City
UTAH
COLORADO
Denver
0 0.5 1 2 3 4 Miles
Sources: ESRI, DeLorme, USGS, NPS
SIMPLOT PHOSPHATES LLC
ROCK SPRINGS PLANT
Figure 1
LOCATION OF SIMPLOT PHOSPHATES, LLC, ROCK SPRINGS PHOSPHATE PLANT
DATE: JUN 30, 2015
BY: DDZ
FOR: BC
FORMATION ENVIRONMENTAL

Location	HSU	Chem Type	GW Elev (ft)
CD	1	Ca-Mg-SO4	6512.46
PZ-B2	1	Ca-Mg-SO4	6518.95
PZ-B3	1	Ca-Mg-SO4	6524.54
PZ-B4	1	Ca-Mg-SO4	6550.34
PZ-B12A	1	Ca-Mg-SO4	6702.77
PZ-B13C	1	Ca-Mg-SO4	6522.34
PZ-B22A	1	Ca-Mg-SO4	[illegible]
PZ-B22B	1	Ca-Mg-SO4	6592.71
PZ-B19C	1	Na-Mg-SO4	6497.59
PZ-B21A	1	Na-Mg-SO4	6571.73
PZ-B21B	1	Na-Mg-SO4	6576.28
PZ-B21C	1	Na-Mg-SO4	6571.35
PZ-B8	1	Na-SO4	6517.08
PZ-B9	1	Na-SO4	6577.65
PZ-B12C	1	Na-SO4	6574.41
PZ-B15A	1	Na-SO4	6565.61
PZ-B15B	1	Na-SO4	6565.58
PZ-B17B	1	Na-SO4	6549.35
PZ-B17C	1	Na-SO4	6563.03
PZ-B18A	1	Na-SO4	6673.00
PZ-B18B	1	Na-SO4	6569.43
PZ-B18C	1	Na-SO4	6514.47
PZ-B20A	1	Na-SO4	6673.63
PZ-B20B	1	Na-SO4	6680.86
PZ-B20C	1	Na-SO4	6561.31
PZ-B11C	2	Na-Cl	6547.16
PZ-B16A	2	Na-Cl	6545.22
PZ-B16B	2	Na-Cl	6545.58
PZ-B23A	2	Na-Cl	6512.36
PZ-B23B	2	Na-Cl	6511.88
PZ-B6	3	HCO3	6518.26
PZ-B10A	3	HCO3	6518.87
PZ-B10B	3	HCO3	6518.07



AERIAL PHOTOGRAPH OF PHOSPHOGYPSUM STACK SYSTEM

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING

DRAWN BY: RDC	CHECKED BY: WAS	DATE: 04/05/19			
FILE NO. 16-13-0070S	APPROVED BY:			FIGURE: 3	

T:\...\SIMPLOT ROCK SPRINGS\... CLOSURE COST ESTIMATE__CURRENT SHEET SET\3 AERIAL PHOTOGRAPH OF PHOSPHOGYPSUM STACK SYSTEM.dwg 4/05/2019 12:08:28 PM, richard.clemons


TOPOGRAPHIC MAP
OF PLANT SITE AND
GYPSUM STACK
Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants
J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING
RDC
WAS
04/05/19
4
SCALE:
0
400
800
TOPOGRAPHY FROM AERIAL PHOTOGRAPH DATED: SEPTEMBER 23, 2018
TRUE NORTH
PLANT NORTH
AUXILIARY FRESH WATER STORAGE POND
RETURN WATER PUMP POND
CELL 6
CELL 7
CELL 4
CELL 1
CELL 5
CELL 2
CELL 3
FENCE LINE


TOPOGRAPHIC MAP OF STACK
EXISTING GEOMETRY
Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants
J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING
TRUE NORTH
PLANT NORTH
FENCE LINE
RDC
WAS
04/05/19
5

Legend
Collection Ditch Samples
Simplot Monitoring Wells
2013 SAWP Monitoring Wells
J.R. Simplot Ownership
Sections
Simplot Topo 2009
Pre-Facility Topography (CI = 200 ft)
Pre-Facility Topography (CI = 20 ft)
SIMPLOT PHOSPHATES LLC
ROCK SPRINGS PLANT
Figure 6
GROUNDWATER
MONITORING WELL LOCATIONS
FOR RCRA 2013 INVESTIGATION
DATE: JUL 09, 2015
BY: DDZ
FOR: BC
FORMATION ENVIRONMENTAL
MAIN PROCESSING FACILITY
COOLING WATER POND
AUXILIARY POND
PROCESS POND
GYPSUM STACK
GROUNDWATER COLLECTION DITCH
CD Inlet
CD
CR 27/Aspen Mountain Rd
430
PZ-B20A
PZ-B20B
PZ-B20C
PZ-B19A
PZ-B19B
PZ-B19C
PZ-B12A
PZ-B12B
PZ-B12C
PZ-B13A
PZ-B13B
PZ-B13C
PZ-B21A
PZ-B21B
PZ-B21C
PZ-B22A
PZ-B22B
PZ-B18A
PZ-B18B
PZ-B18C
PZ-B9
PZ-B15A
PZ-B15B
PZ-B4
PZ-B3
PZ-B17A
PZ-B17B
PZ-B17C
PZ-B10A
PZ-B10B
PZ-B10C
PZ-B6
PZ-B2
PZ-B11A
PZ-B11B
PZ-B11C
PZ-B8
PZ-B16A
PZ-B16B
PZ-B16C
PZ-B14
PZ-B1R
PZ-B1
PZ-B23A
PZ-B23B
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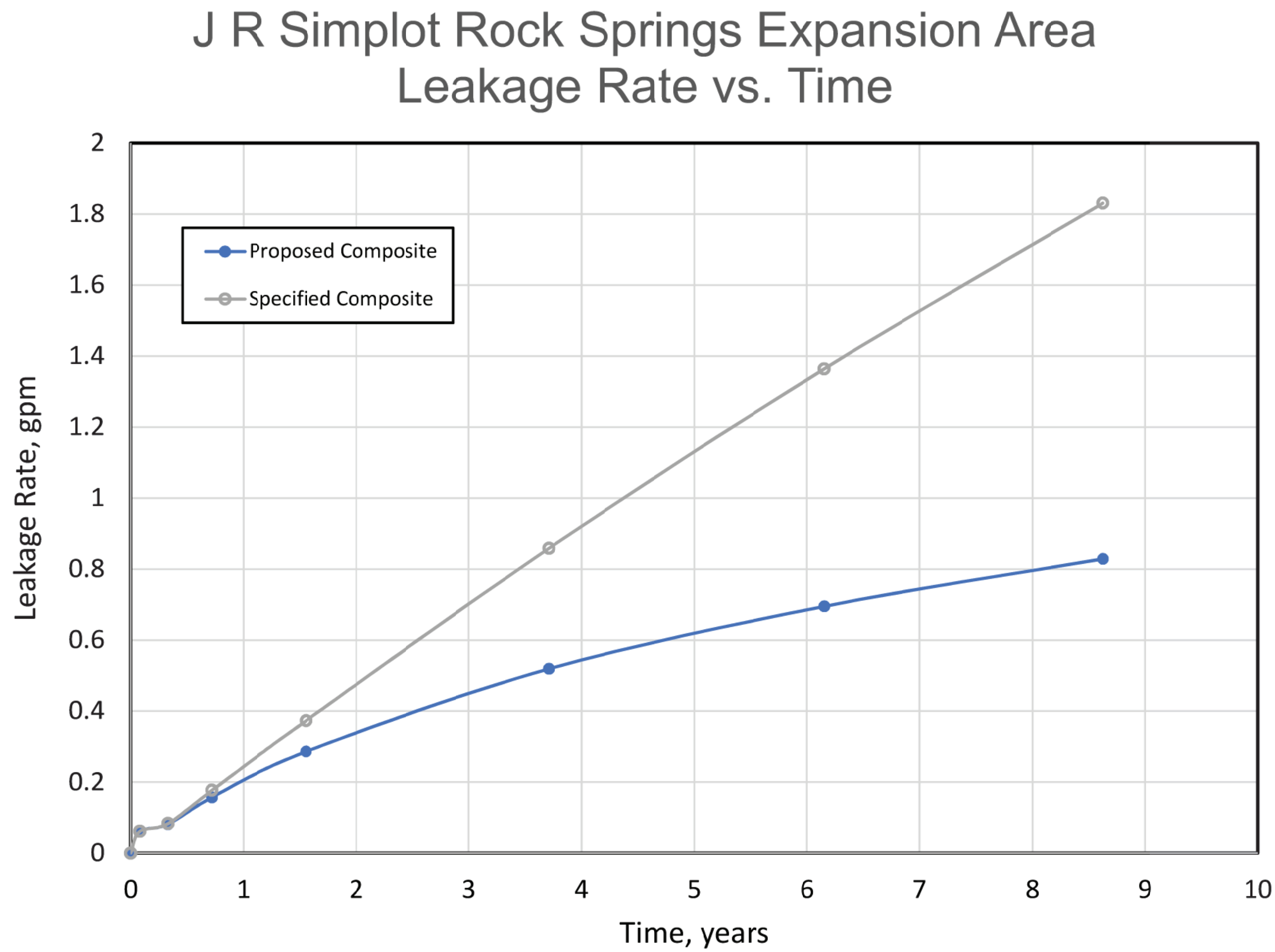

Ardaman Associates, Inc.
File Number 16-13-0070A

Figure No. 7

Ardaman & Associates, Inc.

Geotechnical, Environmental and
Materials Consultants

October 21, 2019
Revised November 14, 2019
File Number 16-13- 0070A

J.R. Simplot Company
P.O. Box 27
Boise, Idaho 83707

Attention: Mr. Alan L. Prouty
Vice President, Environmental & Regulatory Affairs

Subject: Alternative Liner Demonstration, Expansion of the Rock Springs Phosphogypsum Stack System, J.R. Simplot Company, Rock Springs, Wyoming.

Gentlemen:

As requested, Ardaman & Associates, Inc. has prepared the following letter to demonstrate that for the specific physical and hydrogeological conditions present at the site of the proposed expansion of the Rock Springs Phosphogypsum Stack System, an HDPE geomembrane liner in contact with sedimented gypsum placed in slurry form provides an equivalent or superior degree of protection of human health and the environment.

As discussed below, the proposed liner for the expansion area consists of a compacted gypsum-geomembrane composite liner over an approximately 44-acre portion of the expansion and a sedimented gypsum composite liner over the remaining 120-acre portion of the proposed expansion area.

This report provides an analysis of the combined liner system that demonstrates that the potential leakage from the proposed liner system will be less than or equal to the potential leakage from the compacted gypsum-geomembrane alternative specified in Attachment C (Phosphogypsum Stack System Construction and Operational Requirements) of the proposed Consent Decree between the United States, the State of Wyoming, and the J.R. Simplot Company.

Background

Site Description

The Simplot Rock Springs phosphate plant (the “Site”) is located at 515 South Highway 430 approximately 4½ miles southeast of the city of Rock Springs in Sweetwater County, Wyoming (Figure 1). The Site occupies approximately 2,720 acres and includes all property currently under the ownership or control of J.R. Simplot. The main processing facility comprises a rock receiving plant, phosphoric acid plant, super phosphoric acid plant, sulfuric acid plant, granulation plant, fertilizer storage building, and rail yard. The phosphogypsum stack system includes the gypsum stack, groundwater collection ditch, auxiliary pond, process/decant pond, and cooling water pond.

The industrial facility siting permit was issued for the phosphate plant in 1982 (Chevron 1982b). Construction of the phosphate plant began in 1984 and operations commenced in 1986 (BLM 1983). Various other permits for air quality; permits to construct water supply facilities, wastewater facilities and sediment control features; and reservoir permits for the various evaporation and holding ponds were also obtained (BLM 1983).

Geology

The Site is located on the western flank of the Rock Springs Uplift in the Sweetwater Creek valley of the greater Green River Basin. Sweetwater Creek is an intermittent stream that flows generally north-northwest from the slopes of Aspen Mountain to its junction with Bitter Creek just west of Rock Springs. The topography of the Rock Springs Uplift consists of a central basin surrounded by ridges and mountains (Mason and Miller 2004). The uplift, an elongate anticline with a north-trending axis, is comprised of sedimentary rock strata with dips on the flanks between 3 and 15 degrees toward the adjacent structural lows. The highest point in the area is Aspen Mountain, at an elevation of about 8,700 feet. The Rock Springs area is characterized by cold winters and dry summers with an average annual precipitation of approximately 9 inches.

The Site is underlain by the Blair Formation which is approximately 900 feet thick and consists of thin bedded siltstones, claystones and fine-grained sandstones. The bedrock is mantled by a thin layer of alluvium comprised of windblown silts and sands (Woodward-Clyde 1982b). Groundwater flow at the Site is generally westward toward the Green River (Ardaman 1985). Recharge to groundwater aquifers occurs primarily by infiltration of precipitation in outcrop areas, infiltration of snowmelt runoff from the mountains, and leakage of stream flow (Mason and Miller 2004). Regional groundwater quality is described as relatively poor (Wyoming Water Development Commission [WWDC] 2010). Dissolved solids in groundwater are elevated due to the presence of naturally occurring soluble minerals such as trona, gypsum, and halite.

Phosphogypsum Stack System

Operation of the phosphogypsum stack system at the Site began in 1986. The entire footprint of the phosphogypsum stack system was provided with a 60-mil HDPE geomembrane bottom liner that was installed in phases as the size of the gypsum storage area increased with time. The total lined area currently covers just over 420 acres. As shown on Figure 2, groundwater flow beneath the phosphogypsum stack system is toward the west-southwest and is captured in a groundwater collection ditch that was constructed prior to beginning operation of the system. The water level in the groundwater collection ditch is maintained at an elevation that is lower than the elevation of the water table to the west-southwest, i.e., the groundwater collection ditch acts as a hydraulic barrier to seepage from the east-northeast.

The phosphogypsum stack is operated using wet stacking techniques wherein gypsum slurry is pumped at approximately 30 to 32 percent solids to sedimentation compartments (cells) located on top of the stack, where the solids can settle, and the clarified process water is decanted and pumped back to the phosphoric acid plant for reuse.

Figure 3 shows the present configuration of the Rock Springs facility. As noted, the storage area is currently divided into seven separate cells, five of which are located on the main body of the gypsum stack, while the other two are within the footprint of the most recently lined expansion area, located on the east side of the original gypsum stack footprint. Figures 4 and 5 provide topographic maps of the Rock Springs facility and phosphogypsum stack system.

The bottom elevation of the existing stack ranges from a low of about 6,580 feet (NGVD) beneath the west-southwest side of the original gypsum stacking area to a high of about 6,700 feet (NGVD) beneath the lined expansion area on the east-northeast side of the site. The elevations of the perimeter gypsum dikes on top of the gypsum stack vary from 6,790 feet (NGVD) on the west to 6,720 feet (NGVD) on the east.

Decanted process water from the stack currently flows by gravity through a perimeter ditch system to an existing lined process water surge pond and return water pump station located just south of the southwest corner of the gypsum stack. Return water is pumped from this pond back to the plant for reuse.

Site Investigation History

Several investigations had been conducted at the Site that have included characterization of hydrogeology and groundwater chemistry. The primary investigations are as follows:

Four site evaluations were performed by various consultants between 1981 and 1984 for Chevron at the proposed location of the gypsum storage facility to characterize geological, geotechnical, and hydrological subsurface conditions prior to construction of the facility (TRC 1982, Woodward-Clyde 1982 and 1982a, and Ardaman 1985). A series of deep monitoring wells, designated P-1 through P-15, were installed as part of these initial investigations. In 1985, four shallow groundwater monitoring wells (PZ-B1 through PZ-B4) were completed immediately downgradient of the groundwater collection ditch during construction of the gypsum storage impoundment (subsequently completed in 1986).

Groundwater samples have been collected by the facility operator since 1985, just prior to the initiation of operation of the gypsum storage facility in 1986. From 1985 through 1990, quarterly samples were obtained from the groundwater collection ditch and from monitor wells PZ-B2, PZ-B3, and PZ-B4. In 1991, five additional wells were drilled in the vicinity of the gypsum storage impoundment (PZ-B5 through PZ-B9), although PZ-B5 and PZ-B7 were abandoned shortly thereafter. Monitoring wells PZ-B6, PZ-B8 and PZ-B9 were sampled only once and were not added to the scope of quarterly sampling.

In July 2012, after the RCRA 3013 AOC was signed, groundwater monitoring was expanded to all six existing functional groundwater monitoring wells: PZ-B2, PZ-B3, PZ-B4, PZ-B6, PZ-B8, and PZ-B9. From June to September 2013, 39 new monitoring wells were installed and sampled at 15 boring locations around the facility. Locations of all functional groundwater monitoring wells and the groundwater collection ditch are shown in Figure 6.

Groundwater samples have been analyzed for pH, specific conductance, chloride, fluoride, sulfate, aluminum, antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, phosphorous, silver, thallium, vanadium, zinc, gross alpha, radium 226 & 228, and total dissolved solids as required by the permit to construct.

Groundwater level measurements have been collected monthly from the groundwater collection ditch and seven monitoring wells (PZ-B1, PZ-B2, PZ-B3, PZ-B4, PZ-B6, PZ-B8, and PZ-B9) and quarterly from all current monitoring wells since 2013.

Summary of Groundwater Characterization

The following groundwater characterization is a summary of the Groundwater Investigation Summary Report prepared by Formation Environmental of Boulder Colorado. The report is dated April 2016.

Stratigraphy

The Site is underlain by bedrock of the Blair Formation, which consists of approximately 900 feet of interbedded shales, siltstones, and fine-grained sandstones covered by a thin layer of alluvium. The alluvium is thickest in the Sweetwater Creek drainage and both historical and recent information indicate the alluvium supports limited unconfined groundwater flow. In many areas across the Site, there is little to no residual soil cover over the Blair Formation. The general dip of the Blair Formation mapped near the Site is approximately six to eight degrees to the west. Bedrock groundwater monitoring wells are completed in the middle Blair Formation, which appears discontinuous and of limited areal extent. The thin very fine grained sandstone layers encountered in borings during the SAWP investigation appear to be laterally discontinuous in cross section and both sandstone and shale strata contribute groundwater flow into the wells.

The alluvium of the Sweetwater Creek drainage consists mostly of silt and clay with fine-grained sand derived from weathering and transport of materials from the weathered portion of the Blair Formation. No previously completed test wells or monitoring wells have been installed exclusively in the alluvium. The residual soil encountered in the borings drilled in 2013 was typically very fine, loose, yellowish brown to brown clayey silt.

The weathered Blair Formation consists of residual strata of silts, clays, and fine grained sands closely resembling the lithology of the Blair Formation, but is less dense and with slightly higher hydraulic conductivities than competent rock below. The weathered Blair Formation was encountered in all the deeper borings completed across the Site and was generally less than 50 feet thick.

Previous investigations revealed the un-weathered Blair Formation to have very low hydraulic conductivity except where fractures and/or sandstone beds are present. The bulk properties of the Blair Formation gathered during previous investigations classify the formation as an aquitard with limited well yields of generally poor quality water. The lithology of the un-weathered Blair Formation is typical of the middle Blair Formation, with most individual strata not correlating directly from boring to boring across the Site. Some evidence of faulting was observed during drilling, specifically between wells PZ-B10 and PZ-B23, where a plastic, calcite rich clay with porous travertine was encountered while drilling the PZ-B23 boring.

Groundwater Occurrence

Based on the geologic, potentiometric and geochemical data, the groundwater encountered in the deeper portions of the Blair Formation likely originates from deep confined zones (Formation 2012b) which are recharged by infiltrating precipitation in sub-crop and outcrop areas on Aspen Mountain. Recharge for the shallow unconfined zone of the Blair Formation is from local infiltration of precipitation at the Site.

Groundwater at locations PZ-B2, PZ-B3, PZ-B4 and to an extent PZ-B6, PZ-B8, PZ-B10A and PZ-B10B is hydraulically connected to the collection ditch and responds to water levels within the collection ditch, which is periodically pumped.

Groundwater elevation measurements were collected during well development and sampling, including gauging of open boreholes in the Blair Formation. Water-bearing zones encountered during drilling were recorded, and the rate of water production was estimated. Water bearing zones were only observed in four borings (PZ-B10, PZ-B21, PZ-B22, and PZ-B23) during drilling. No groundwater was encountered in borings PZ-B1R, PZ-B12, PZ-B14, or PZ-B15 during or after drilling.

Because so few water bearing zones were observed during drilling, double and triple screened well nests were installed in many borings to intersect low-yielding groundwater in at least one screen interval. Several wells have remained dry since installation; therefore, these wells have not been developed or sampled. These wells include: PZ-B11A, PZ-B11B, PZ-12B, PZ-B13A, PZ-B13B, PZ-B17A, PZ-B19A, and PZ-B19B.

Many of the newly installed wells exhibited significant drawdown and very poor recovery while being purged dry or nearly dry during well development. However, wells PZ-B10A, PZ-B10B, PZ-B12A, PZ-B21C, PZ-B22B, PZ-B23B, and PZ-B23C exhibited little to no drawdown with moderate recoveries during development and are believed to have encountered a zone of secondary porosity such as a fault zone.

Groundwater General Chemistry

In general, groundwater encountered at the Site has high concentrations of sodium, sulfate, and TDS. The groundwater samples collected in the third quarter of 2013 had TDS concentrations ranging from approximately 1,000 mg/L to 26,000 mg/L. The high dissolved solids concentrations observed at the Site are likely associated with naturally occurring and relatively soluble minerals (e.g., trona [sodium carbonate], gypsum [calcium sulfate], and halite [sodium chloride]) found in the Blair Formation (WWDC 2010). Previous work by Mason and Miller (2004, p.62) indicated that groundwater within the Blair Formation becomes increasingly saline with distance downgradient from recharge areas. Most recharge occurs at the higher elevations associated with Aspen Mountain located south of the Site.

The major-ion compositions of groundwater samples collected during the third quarter 2013 sampling event indicate at least three distinct groundwater types, as well as groundwaters with intermediate compositions that lie between the three end-member types. Piper and ternary diagrams included in the Sampling and Analysis Report [SAR] (Formation 2014) illustrate the water-type classifications determined during the RCRA 3013 investigation, which include:

- Sodium-Sulfate to Magnesium-Sulfate Groundwater characterized by relatively low chloride and moderate TDS encountered at PZ-B9, PZ-B12A, PZ-B13C, PZ-B15A, PZ-B15B, PZ-B17B, PZ-B17C, PZ-B18A, PZ-B18B, PZ-B20A, PZ-B20B, PZ-B20C, PZ-B22B, PZ-B2, PZ-B3, PZ-B4, and the collection ditch (CD, CD Inlet)

- Bicarbonate Groundwater characterized by relatively low chloride and TDS but intermediate sodium and magnesium concentrations encountered at PZ-B6, PZ-B10A, PZ-B10B, and PZ-10C

- Sodium-Chloride Groundwater characterized by relatively high chloride and very high TDS concentrations encountered at PZ-B11C, PZ-B16A, PZ-B16B, PZ-B16C, PZ-B23A, PZ-23B and PZ-B23C

Hydrostratigraphic Units and Groundwater Potential

Hydrostratigraphic units (HSUs) were identified using the lithologic data obtained from boreholes drilled in the study area, groundwater potentiometric data collected from wells, groundwater chemistry data, and interpretation of regional geological structural information. Because hydrologic and chemical data indicate that groundwater is not laterally continuous across the Site and geologic data indicate that the local fracture systems and related faulting may control groundwater flow in separate HSUs, three main hydrostratigraphic units were identified at the Site.

The major-ion compositions of groundwater samples indicate that there are at least three distinct groundwater types present at the Site, as well as groundwater with intermediate compositions. The existence of chemically distinct groundwater types is consistent with other Site-specific evidence for multiple, separate hydrostratigraphic units (HSUs) with varying degrees of hydraulic communication. Three major HSUs were delineated during the RCRA 3013 investigation: HSU-1 (Sulfate-type Groundwater), HSU-2 (Sodium Chloride-type Groundwater) and HSU-3 (Bicarbonate-type Groundwater). Each of these HSUs is described in the following paragraphs. The extent of each of the HSUs and groundwater potential in each is shown in Figure 4.

HSU-1 comprises a sulfate-type groundwater and is the most prevalent geochemical classification of groundwater found at the Site. There is chemical variation within this water type, specifically within cation concentrations, and groundwater potentiometric data indicate that groundwater within HSU-1 is limited in vertical and lateral hydraulic connection. Groundwater potentiometric and stratigraphic/structural geologic data indicate that not all wells within this HSU are in direct hydraulic communication. Wells PZ-B12B, PZ-B13A, PZ-B13B, PZ-B17A, PZ-B19A, and PZ-B19B are dry and delineate a zone in which no groundwater was encountered.

Sources of groundwater in this area appear to be recharge or upward leakage of confined groundwater in the vicinity of the PZ-B18 well nest and artesian groundwater in the vicinity of the PZ-B20 and PZ-B21 well nests. Northwest of the gypsum stack, there is a downward hydraulic gradient at the PZ-B18 monitoring well nest and a lateral hydraulic gradient toward the location of the PZ-B17 well nest.

Groundwater potential decreases from northeast to southwest and there are no apparent facility influences on the hydraulic gradient or groundwater flow direction other than the groundwater collection ditch. Pre-construction site investigation indicates that groundwater was present in the area now beneath the gypsum stack. Since no current data can be obtained on groundwater conditions directly beneath the stack, it is assumed that this groundwater is still present and correlates with groundwater in HSU-1. Potentiometric contours beneath the gypsum stack are shown as estimated in Figure 2. General chemistry data indicate that there is significant variation in analyte concentrations with no apparent pattern that correlates with potential source areas at the facility. TDS concentrations measured in the HSU-1 wells are within the range detected in the monitoring wells prior to the operation of the gypsum stack. Groundwater within the Blair Formation generally has a high concentration of TDS due to naturally occurring minerals within the formation.

The constituent concentrations observed in groundwater within HSU-1 indicate that the Wyoming

Class IV(A) classification is appropriate for this unit. Total phosphorus concentrations that occur in the surface water samples collected within the collection ditch are not found within groundwater from nearby monitoring wells PZ-B2, PZ-B3, PZ-B4, and PZ-B8. Variations in total phosphorus concentrations in the collection ditch water samples suggest that phosphorus may be sourced from naturally occurring phosphorus within soils. The concentrations of phosphorus reported for the off-facility soil samples ranged from 645 mg/Kg to 1,260 mg/Kg with an average concentration of 972 mg/Kg (Formation 2014). The greatest concentration was detected in the 1.0 to 1.5 foot sample collected from upwind location OSB-03. Total phosphorus concentrations in the collection ditch water samples vary considerably due to seasonal algal growth patterns, vegetation growth and decomposition along the ditch, and pumping of water from the ditch.

HSU-2. West and southwest of the gypsum stack along the bluff capped by the Rock Springs Formation, a zone of sodium-chloride type water is encountered in seven wells: PZ-B11C, PZ-B16A, PZ-B16B, PZ-B16C, PZ-B23A, PZ-B23B, and PZ-B23C. Except for PZ-B23B, all of these wells have very high concentrations of dissolved solids. Groundwater potentiometric and stratigraphic/structural geologic data indicate that all the wells within this HSU are in hydraulic communication. Groundwater potentiometric data indicate that the source of this type of groundwater is from a deep artesian source aligned with the locations of these wells, possibly along a fracture zone.

Both the hydrologic and chemical data indicate that groundwater is not laterally continuous across the entire Site. Geologic data indicate that the local fracture systems and related faulting may control groundwater flow in separate HSUs and that the Site is generally located in an area of groundwater discharge. Groundwater potential is related to surface topography and the degree of confinement of artesian pressure developed in higher elevation recharge areas (i.e. Aspen Mountain). Results of investigations support the concept that the Blair Formation does not provide a continuous groundwater flow system: the relatively low hydraulic conductivity of the Blair Formation only allows for wells to achieve significant water yields when located in areas where secondary porosity is evident and controlled by the presence of faults. Locations and depths at which no groundwater was encountered also aid in the understanding of the continuity of each unit.

Both groundwater potential and geochemical data indicate that these wells are in hydraulic connection probably resulting from a fault or fracture zone that allows connection with deep artesian groundwater. The constituent concentrations observed in groundwater within HSU-2 indicate that the Wyoming Class IV(A) classification is appropriate for this unit.

The groundwater potential indicates that groundwater flow direction within HSU-2 is dominated by upward vertical movement (groundwater potential is higher in the deeper monitoring wells) with only a minor lateral gradient. The concentrations of COPCs in shallow groundwater in this zone (PZ-B16A and PZ-B23A) are similar to that in deeper groundwater (PZ-B11C, PZ-B16C, and PZ-B23C) and potentially due to the upward leakage of the deeper groundwater.

HSU-3. Bicarbonate is the dominant anion in the groundwater encountered in four wells located in the Sweetwater Creek drainage southeast of the gypsum stack: PZ-B6, PZ-B10A, PZ-B10B, and PZ-10C. Groundwater collected at these locations is characterized by relatively low TDS concentrations typical of the effects of local recharge (incident precipitation/runoff water). Groundwater potentiometric and stratigraphic/structural geologic data indicate that wells within this HSU are in direct hydraulic communication. The groundwater in PZ-B10C, which contains relatively high sodium and chloride with bicarbonate, indicates that the source of this type of groundwater is derived from a deep confined zone with that may align with a fracture zone.

Both groundwater potential and geochemical data indicate that these wells are in hydraulic connection probably resulting from a fault or fracture zone that allows connection with deep artesian groundwater. The groundwater potential and general chemistry data do not indicate that this unit is influenced by the gypsum stack. Upward flow of groundwater in this area is partially under the influence of the collection ditch and results in a shallow groundwater flow path that trends toward the northeast from PZ-B10A toward PZ-B6. The constituent concentrations observed in groundwater within HSU-3 indicate that the Wyoming Class III classification is appropriate for this unit.

The groundwater potential indicates that groundwater flow direction within HSU-3 is dominated by upward vertical movement (groundwater potential is higher in the deeper monitoring wells), with only a minor lateral gradient. The concentrations of constituents of potential concern (COPCs) in shallow groundwater in this zone (PZ-B10A and PZ-B6) are similar to that in deeper groundwater (PZ-B10C) and potentially due to the upward leakage of the deeper groundwater. The considerable difference in groundwater quality between groundwater samples collected from HSU-3 and the nearby wells completed in the HSU-2, both of which are dominated by upward flow of groundwater, illustrates the complexity of the Blair Formation groundwater flow patterns.

Summary of Groundwater Data Analyses

The following groundwater data analyses is a summary of the Groundwater Investigation Summary Report prepared by Formation Environmental of Boulder Colorado. The report is dated April 2016.

Water quality samples were collected at 23 groundwater monitoring wells and two locations within the groundwater collection ditch over the period from September 2013 to April 2015 (eight consecutive quarters) under the expanded analyte list required by the RCRA AOC. Over this period water level measurements were made approximately quarterly at all 45 monitoring well locations and the collection ditch. Prior to September 2013 water level measurements and water quality samples were only collected from the monitoring wells installed in 1985 and 1996. The recent data were evaluated using some of the same methods that are used to evaluate background conditions in the Baseline Groundwater Conditions Report [BGWCR] (Formation 2016) to characterize spatial, temporal and statistical variations in groundwater chemistry within the facility and identify chemically distinct groundwater that may be present due to chemical releases from the facility, if any. The historic monitoring data (data collected prior to July 2012) was analyzed separately prior to the RCRA order and presented in the Groundwater Data Analysis Report (Formation 2012). A summary of the results of these analyses is provided in the following paragraphs.

<u>General Considerations in the Evaluation of the Groundwater Quality Data</u>

Groundwater quality within the Blair Formation, which underlies the facility, is typically poor due to naturally occurring salts, and the concentrations of some chemical constituents that are associated with the facility, such as sulfate, are naturally elevated in groundwater from the Blair Formation. Based on the high sulfate and TDS concentrations found in groundwater samples obtained prior to facility operation, groundwater at the Site classifies as Class III (TDS from 2000 mg/L to 5000 mg/L) and Class IV(A) (TDS from 5000 mg/L to 10,000 mg/L) according the Wyoming groundwater quality standards. The high dissolved solids concentrations observed at the Site are likely associated with naturally occurring, relatively soluble minerals, such as trona (sodium carbonate), gypsum (calcium sulfate), and halite (sodium chloride), that are found in the

Blair Formation (WWDC 2010). Previous work published by Mason and Miller (2004, p.62) indicated that groundwater within the Blair Formation becomes increasingly saline with distance downgradient from recharge areas. Most recharge occurs at the higher elevations associated with Aspen Mountain located south of the Site.

Based on the data analyses provided the SAR and BGWCR, groundwater conditions in the vicinity of the facility are best described as naturally heterogeneous, variable and of generally poor quality. The potential influence of facility operations was assessed by evaluating spatial distribution of constituent concentrations in groundwater, concentration trends over time, and influence on groundwater hydrology (changes in groundwater level due to facility influence). The assessment also considered the chemistry of potential sources at the facility and the influences on groundwater sample chemistry resulting from sampling conditions.

As initially recognized in the SAR, a potential transport pathway to groundwater considered in the investigation was the infiltration and/or leaching of source materials and vertical migration to underlying shallow and possibly deeper groundwater as indicated by elevated concentrations of COPCs in subsurface soil and groundwater. This potential pathway is constrained by the arid climate, which results in limited infiltration potential, and the chemistry of the subsurface soils and bedrock materials, which are alkaline and have a high acid neutralizing potential; if any release of phosphoric acid or sulfuric acid takes place, the acid has a high potential to be neutralized before migrating downward to groundwater. Vertical migration from the main processing area is limited by the depth to saturated groundwater and the low permeability of strata above the saturated zone. Groundwater elevation and chemistry data demonstrate that operations at the facility do not affect groundwater potential or concentrations of COPCs in groundwater. As a result, the conceptual site model shows no transport of COPCs to groundwater.

<u>Groundwater Potential</u>

Groundwater potential at the Site is related to surface topography when unconfined and the degree of confinement and artesian pressure developed in higher elevation recharge areas. Most recharge occurs at the higher elevations associated with Aspen Mountain located south of the Site. Groundwater potential decreases from northeast to southwest, as shown in Figure 2. There are no apparent facility influences on the hydraulic gradient or groundwater flow direction other than the groundwater collection ditch. The collection ditch intercepts the groundwater table and since it is pumped down periodically, the ditch generates a low in the potentiometric surface.

Geologic data indicate that the local fracture systems and related faulting may control groundwater flow in HSUs and that the Site is generally located in an area of groundwater discharge.

The RCRA 3013 investigation supports the concept that the Blair Formation does not provide a continuous groundwater flow system and the relatively low hydraulic conductivity of the Blair Formation only allows for wells to achieve significant water yields when located in areas where secondary porosity is evident and controlled by the presence of faults. Previously observed aquifer transmissivities were very low (Ardaman 1985) except in areas where fractures and/or sandstone beds were present (Woodward-Clyde 1982b). Observed drawdown and recoveries during the RCRA 3013 investigation indicate that the Blair Formation acts as an aquitard except in localized areas where secondary porosity is present.

As described in the BGWCR, no spatial pattern of chemical concentrations in groundwater is evident at the Site, except for elevated concentrations of nitrate+nitrate and selenium between wells PZ-B12A, PZ-B22B and PZ-B4 (upgradient to downgradient, respectively). An apparent groundwater pathway exists in this area as evidenced by observed nitrate+nitrate and selenium concentrations measured at these wells and the possible presence of a fracture zone. As described in the BGWCR, the groundwater travel time between PZ-12A and PZ-22B is estimated to be about 13 years (assuming an effective porosity of 1%).

Hydrographs showing trends in groundwater elevation are included in Appendix A. The water level within the groundwater collection ditch is managed to achieve groundwater capture by maintaining a lower level than that of the shallow unconfined groundwater down gradient of the ditch. Groundwater elevations in wells near the groundwater collection ditch (PZ-B2, B3, B4, B6, B8, B10A, and B10B) are hydraulically connected and fluctuate corresponding to the water level in the groundwater collection ditch, which is periodically pumped down as a source of plant makeup water. Steadily increasing groundwater elevations have been observed for several years at well PZ-B9. Well PZ-B9 is situated in an arroyo that was dammed as a result of the construction of the Gypsum Stack. This causes storm water runoff to pool and infiltrate in the vicinity of the well. Increasing trends in groundwater elevation have also been observed in a number of other monitoring wells including PZ-B11C, PZ-B12A, PZ-B12C, PZ-B14, PZ-B15A, PZ-B15B, PZ-B16A, PZ-B16B, PZ-B16C, PZ-B17C, PZ-B18B, PZ-B18C and PZ-B20C. These groundwater level trends are the result of very slow groundwater yield from the very low hydraulic conductivity Blair Formation, in which almost all the monitoring wells are installed. All the recently completed monitoring wells were installed in a nested arrangement within a single boring and most of these borings were dry upon the completion of drilling. Groundwater at initially dry locations has taken many months to years to equilibrate to static conditions resulting in a trend of significant groundwater level increase.

<u>Groundwater Quality</u>

The groundwater data analysis presented in the BGWCR generally confirms the investigation findings documented in the SAR. Time series charts showing concentration trends for each analyte are included in Appendix B. Post plots showing concentrations in groundwater samples are included in Appendix C. The high concentrations of major ions (calcium, magnesium, sodium, sulfate and chloride) are typical of the groundwater of HSU-1 and HSU-2. Most metals are detected at very low concentrations or are not detected above analytical method limits. The major ions and most metals do not show any spatial correlation with potential sources within the facility or groundwater flow paths from those sources. The exceptions are nitrate, selenium and phosphorus.

Concentrations of nitrate and selenium are elevated in samples from wells PZ-B4, PZ-B22B, and PZ-B12A. Nitrate is typically not detected in groundwater samples and selenium is typically present in concentrations of less than 0.005 mg/L. Selenium is also elevated in samples from the groundwater collection ditch. Selenium is not detectable in ore processed at the facility. While sources of these constituents are unknown, the distribution and concentration of nitrate and selenium was recognized and described in the SAR and BGWCR and suggest transport along a groundwater flow path that connects these wells and terminates at the groundwater collection ditch.

Phosphorus is detected in groundwater samples in concentrations of less than 1.0 mg/L and frequently in concentrations of less than 0.1 mg/L. The sample collected from the collection ditch in April 2015 had a concentration of 39.3 mg/L. The concentration at a seepage face referred to as the CD Inlet was 2.82 mg/L. The elevated concentrations of phosphorus were described in the SAR (Formation 2014) and the source of phosphorus in the collection ditch is attributed to phosphorus that is available within native materials then concentrated by bioaccumulation.

As part of the analyses conducted in the BGWCR, trend tests were performed for each analyte at each monitoring well - this resulted in a total of 792 tests. The Mann-Kendall test, which is non-parametric and independent of the data distribution, indicated that, of the analyte concentration trends with a detection rate of 70% or greater, a total of 189 had a decreasing (D) or probably decreasing (PD) trend; 54 had an increasing (I) or probably increasing (PI) trend; and the remaining 310 had either a stable trend (S) or no trend (NT). Most of the increasing trends were observed in samples obtained from the monitoring wells that were installed in 1985 or 1997 in which dedicated sampling equipment had been installed. Most of the decreasing trends were observed in the monitoring wells that were installed in 2013. As described in the BGWCR, some of the decreasing trends may be due to the turbidity of the samples obtained.

Poor yielding monitoring wells installed during the RCRA 3013 investigation initially yielded groundwater samples with high turbidity. After several rounds of purging and sampling, turbidity decreased indicating that well development had been enhanced. In addition, sampling methodologies were refined based on the difficult conditions encountered during the investigation (i.e. utilizing the no-purge bailer method versus volumetric purging). Samples obtained from wells became less turbid due to lower degree of disturbance to the water column. Even though some upper outliers were removed based on high turbidity, the decreasing trends in the recently installed monitoring wells may be attributed to the slow recovery of the monitoring wells from the disturbed conditions resulting from installation in strata that yield very low groundwater flow to the well. Due to the very slow groundwater movement, trend tests over a two year period may be insufficient to capture true natural variability in the older established wells and are not sufficient to delineate trends in the recently installed wells where water quality is likely influenced by the disturbance caused by the installation of the monitoring well. Some analytes, such as nitrate which is not present in the native media, should be independent of the well installation/sampling effect and trend analysis could therefore be valid.

In summary, the available monitoring data are sufficient to identify specific chemical constituents that can serve as indicator parameters for facility releases. The data also indicate that groundwater chemistry is consistent with that expected for the Blair Formation based on regional investigations and there is no spatial pattern indicative of substantial facility releases. The data also indicate that initial groundwater samples in newly installed monitoring wells have high constituent concentrations related to the disturbed conditions resulting from drilling. As a result, statistical analyses of the available data must consider these potential influences on the data set.

Alternative Liner Demonstration

The liner system beneath the original phosphogypsum stack and all the lateral expansion liners constructed since 1985 consist of a 60-mil HDPE geomembrane liner underlain by a 16-oz. geotextile. The geotextile was installed to minimize stress concentrations in the liner resulting from near surface weathered rock fragments that may be present in the liner subgrade. Almost the entire lined area is covered with up to 200 or more feet of sedimented gypsum. The only uncovered liner is in the return water ditch that runs along the northeast and southeast sides of the phosphogypsum stack. The top of the phosphogypsum stack is kept ponded for sedimentation of the fine silt-sized phosphogypsum crystals and for evaporative cooling.

As described in the previous sections of this report, no evidence of liner leakage has been measured in groundwater samples obtained from the groundwater collection ditch or in monitor wells constructed around the lined phosphogypsum stack system. Either there are no defects in the geomembrane liner or the sedimented gypsum above the geomembrane is acting as the non-synthetic component of a composite liner.

This is not unexpected. The hydraulic conductivity of sedimented phosphogypsum is relatively low even at initial sedimented densities and decreases substantially as the thickness of the gypsum above the liner increases. For example, sedimented Rock Springs phosphogypsum has a vertical hydraulic conductivity of less than 4×10^{-4} cm/sec at a depth of 1 foot and a vertical hydraulic conductivity of less than 7×10^{-5} cm/sec at a depth of 100 feet. Furthermore, the diameter of the gypsum crystals (less than 0.06 mm) is much smaller than the diameter of a typical defect (2 to 3.56 mm) in the geomembrane and would fill the defect during initial sedimentation. This was demonstrated by the tests performed by Garlanger et al (1994) during development of the Florida Phosphogypsum Management Rule (17-763 FAC).

Paragraph VI (4) of Attachment C (Phosphogypsum Stack System Construction and Operational Requirements of the proposed Consent Decree between the United States, the State of Wyoming, and the J.R. Simplot Company specifies that the non-synthetic component of the composite Liner shall consist of either of the following:

b.iii. a A layer of compacted soil at least eighteen (18) inches thick, placed below the Geomembrane, with a maximum hydraulic conductivity of 1×10^{-7} centimeters per second, constructed in six-inch lifts; or

b.iii. b A layer of mechanically compacted Phosphogypsum at least twenty-four (24) inches thick, placed above the Geomembrane, with a maximum hydraulic conductivity of 1×10^{-4} centimeters per second.

b.iii. c Slurry discharged into the expansion area allowing the phosphogypsum to sediment in to reach a maximum hydraulic conductivity of 1×10^{-4} centimeters per second.

It also states that the non-synthetic component of a Phosphogypsum Stack composite Liner will not be required for vertical expansions under the following conditions:

b.iv. a. where it has been demonstrated to and approved by the STATE or EPA that a synthetic Liner alone or in contact with sedimented gypsum placed in slurry form will be equivalent or superior to a composite Liner designed and installed in accordance with the requirements of this Section VI (Phosphogypsum Stack System Construction Requirements); or

b.iv. b. where it has been demonstrated to and approved by the STATE or EPA that a synthetic Liner in contact with sedimented gypsum placed in slurry form is equivalent or superior to a composite Liner with twenty-four (24) inches of compacted Phosphogypsum placed above the Geomembrane;

In addition, the proposed language in the current draft of Attachment C states that

b. v where it has been demonstrated and certified by a third-party engineer and approved by the STATE or EPA that a synthetic Liner in contact with sedimented gypsum placed in slurry form, and with consideration of the physical and hydrogeological setting of the specific lateral expansion, provides an equivalent or superior degree of protection for human health and the environment.

Simplot proposes to use both compacted phosphogypsum and sedimented phosphogypsum as the non-synthetic components of the composite liner. The compacted phosphogypsum will be used over permanently exposed areas, e.g., slopes of the earthen perimeter dike, and within the initial 44-acre sedimentation area. The sedimented gypsum will be used in the remaining 120 acres.

Because of the topography of the proposed expansion area, gypsum slurry will be introduced along the northeast side of area and flow to the low area along the southwest side of the area. Process water will accumulate in this low area until the overflow elevation of the outfall structure is reached, and process water is discharged to the return water ditch. This will take approximately one month. Gypsum slurry will continue to discharge into the low area for approximately three additional months at which time, there will be no process water ponded above the uncovered geomembrane.

Gypsum will continue to be introduced from the northeast and be deposited on a phosphogypsum beach moving away from the overflow weir. Any defect in the geomembrane will be filled with sedimented gypsum as soon as the moving beach reaches the defect.

The leakage through the composite liner system, q, as the thickness of phosphogypsum increases with time can be computed for sedimented phosphogypsum and compacted gypsum using the following equations from Garlanger et al (1994):

$$q = \frac{4\sqrt{k_h k_v} h_w r_d}{1 + \frac{4\sqrt{k_h k_v} t}{\pi r_d k_v}}, \quad (1)$$

$$q = 4\sqrt{k_h k_v} h_w r_d, \quad (2)$$

where k_h and k_v are the horizontal and vertical hydraulic conductivities of the sedimented gypsum, h_w is the height of gypsum/water above the liner, r_d is the radius of the defect in the geomembrane, and t = 1.5 mm is the thickness of the liner. The computed seepage rates through the proposed liner system for increasing thicknesses of gypsum above the liner using an anisotropy ratio of 2, two 3.56-mm diameter defects per acre for the sedimented gypsum and four 3.56-mm diameter defects per acre for the compacted gypsum is provided in Figure 7. Also shown for comparison is the predicted leakage when the non-synthetic component over the entire area is compacted phosphogypsum with a saturated hydraulic conductivity of 1×10^{-4} cm/sec. The hydraulic conductivity of the Rock Springs sedimented gypsum was computed from the following equation:

$$k_v = 1.16 \times 10^{-4} e^{2.455},$$

where the void ratio, e, was computed from the expected dry density corresponding to the thickness of Rock Springs gypsum above the liner.

As can be seen by the results presented in Figure 7, the proposed liner system is superior to a composite Liner with twenty-four (24) inches of compacted Phosphogypsum placed above the Geomembrane.

Because the groundwater monitoring data, including the water quality data associated with samples obtained from the groundwater collection ditch over the past 33 years, shows no evidence of groundwater impacts from the existing phosphogypsum stack system, which has only sedimented phosphogypsum above the geomembrane, and because the results presented in Figure 7 indicate that the proposed liner system is superior to the composite liner specified in Attachment C, the proposed liner system should be approved by the US EPA and the State of

Wyoming.

If there are any questions, please contact the undersigned.

Very truly yours,
ARDAMAN & ASSOCIATES, INC.

Andy Singletary, P.E.
Senior Project Engineer

John E. Garlanger, Ph.D., P.E.
Senior Consultant

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Wyoming Department of Environmental Quality (WDEQ) 2011b. Operating Permit No. 3-2-135, Rock Springs Coal Calcining Plant, P4 Production, LLC., WDEQ Air Quality Division, Chapter 6, Section 3, Operating Permit 3-2-135. August 22, 2011.

Appendix 8

Initial Closure Plan for the Facility

Initial Closure Plan and Closure Cost Estimate for the Rock Springs Phosphogypsum Stack System

J.R. Simplot Company
Rock Springs, Wyoming

March 25, 2020

Ardaman & Associates, Inc.

CORPORATE HEADQUARTERS
8008 S. Orange Avenue, Orlando, FL 32809 - Phone: (407) 855-3860 Fax: (407) 859-8121

Branch Office Locations
Florida: Bartow, Cocoa, Fort Myers, Miami, Orlando, Port St. Lucie, Sarasota, Tallahassee, Tampa, West Palm Beach
Louisiana: Baton Rouge, Monroe, New Orleans, Shreveport

CONFIDENTIAL

This document contains financial and other information pertaining to plant operations, production rates and life expectancy. J.R. Simplot Company considers the enclosed information to be confidential and proprietary and requests that WDEQ and EPA maintain this document in a confidential file, not subject to release to the general public.

CONFIDENTIAL

Ardaman & Associates, Inc.

Geotechnical, Environmental and
Materials Consultants

March 25, 2020
File Number 16-13- 0070B

J.R. Simplot Company
P.O. Box 27
Boise, Idaho 83707

Attention: Mr. Alan L. Prouty
Vice President, Environmental & Regulatory Affairs

Subject: Revised Initial Closure Plan and Closure Cost Estimate for the Rock Springs Phosphogypsum Stack System, J.R. Simplot Company, Rock Springs, Wyoming.

Gentlemen:

As requested, Ardaman & Associates, Inc. has prepared an initial closure plan and closure cost estimate for the current footprint and expected configuration of the existing phosphogypsum stack system at the J.R. Simplot Company, Rock Springs facility in Rock Springs, Wyoming assuming closure at the end of calendar year 2024, i.e., 5 years in the future, prior to constructing the next lateral expansion. The gypsum stack configuration utilized for the cost estimate contained herein includes the lined footprint of the existing gypsum storage compartments, associated perimeter process water conveyance ditches and the lined process return water pond and pump station. The closure design and cost estimates contained herein meet the requirements of Attachment D (Closure of Phosphogypsum Stacks/ Phosphogypsum Stack Systems/Components) to Appendix 1 of the proposed Consent Decree between the United States, the State of Wyoming, and the J.R. Simplot Company. Closure in 2024 is considered to represent the condition when the cost for closure, water management/treatment, and long-term care for the current lined footprint of the Rock Springs phosphogypsum stack system would be the most expensive.

The closure cost estimates, water management and long-term maintenance costs provided herein are based on recent experience with similar ongoing and completed projects in the Central Florida area, using recently updated 2018 construction cost unit rates and 2018 unit rates for long-term care. The estimated unit construction costs were compared to costs incurred for ongoing construction activities at other facilities and adjusted as necessary for site-specific construction cost information, and with a regional correction factor based on conventional cost estimating standards (2018 RS Means, Heavy Construction Cost Data). The closure cost estimates included in this report have been prepared and will be used as the basis for establishing proof of financial assurance, as required by the U.S. Department of Environmental Protection (EPA) based on recent negotiations with J.R. Simplot relative to the proposed consent decree. The estimated closure, water management and long-term maintenance costs contained in this report are based on December 2018 dollars.

Contained in this report is a general overview of the existing facility with a conceptual closure plan and schedule of closure. Also included is an estimate of closure construction costs, water management costs and long-term maintenance and operating costs for the closed phosphogypsum stack system, based on the existing facility footprint and expected 2024 configuration. In preparing this closure plan and related cost estimates, we have relied on information supplied by J.R. Simplot and made assumptions relative to plant operating schedules, production rates, adjacent land and facility uses, gypsum stack growth and management, etc. All of these assumptions are listed in Section 3 of this report. The assumptions were made for cost estimating purposes and are subject to change.

Relative to closure and post-closure water management, this plan deviates from the way treatment and consumption of process water is handled at phosphoric acid plants in wet climates. Because of the dry climate in Rock Springs, J.R. Simplot will be able to evaporate ponded and drainable process water at this facility. A portion of the process water will be partially evaporated and permanently retained in the lined phosphogypsum stack. The remaining drainage water will be treated using conventional limestone-lime neutralization. The treated water and treatment residue will be evaporated/stored in lined ponds constructed on top of the phosphogypsum stack. No treated water will be discharged into adjacent surface waters.

Utilization of this treatment and disposal method will require that completion of closure construction activities for portions of the existing facility be extended beyond the closure period that would be required for an unlined phosphogypsum stack system. However, because the Rock Springs phosphogypsum stack system was constructed above a 60-mil HDPE geomembrane bottom liner, the additional closure period will not increase the potential for groundwater discharges from the facility.

This report has been prepared in accordance with generally accepted geotechnical engineering practices for the exclusive use of the J.R. Simplot Company, for specific application to the above referenced project. No other warranty, expressed or implied, is made.

It has been a pleasure assisting you with this project and we look forward to assisting you with the detailed closure plan and closure permit application in due time. If you have any questions about this report or would like to discuss the proposed closure plan or cost estimates in greater detail, please do not hesitate to contact us.

Very truly yours,
ARDAMAN & ASSOCIATES, INC.
Certificate of Authorization No. E-0013

Bill E. Jackson, P.E. (FL)
Principal Engineer

William A. Singletary, P.E. (FL)
Senior Project Engineer

3/25/20
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Senior Consultant
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BEJ/JEG/ed

cc:

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Attachment 1 Aerial Imagery and Topography of Phosphogypsum Stack System

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Section 1

1.1 **Site Location**

The phosphogypsum stack system for the J.R. Simplot Company, Rock Springs fertilizer complex is located approximately 4.5 miles southeast of Rock Springs, Wyoming (see Figure 1). The facility occupies portions of Sections 8, 9, 16 and 17 of Township 18 North, Range 104 West in Sweetwater County, Wyoming. The site location, superimposed on a reproduction of the United States Geological Survey quadrangle map of Rock Springs, Wyoming, is shown in Figure 1.

1.2 **Background**

Operation of the phosphogypsum stack system at the Rock Springs Phosphate Fertilizer Complex began in 1986. The entire footprint of the phosphogypsum stack system has been provided with a 60-mil HDPE geomembrane bottom liner that was installed in phases as the size of the gypsum storage area increased with time. The total lined area at this time and at the assumed time of terminal closure covers just over 420 acres. The phosphogypsum stack is operated using wet stacking techniques wherein gypsum slurry is pumped [redacted] to sedimentation compartments (cells) located on top of the stack, where the solids are allowed to settle, and the clarified process water is decanted and pumped back to the phosphoric acid plant for reuse. The gypsum stack is raised by the upstream method of construction using rim ditch techniques for hydraulic distribution of the gypsum slurry around the perimeter of the various sedimentation compartments. Figure 2 shows the present configuration of the Rock Springs facility. As noted, the storage area is currently divided into seven separate cells, five of which (Cells 1 through 5) are located on the main body of the gypsum stack, while the other two (Cells 6 and 7) are within the footprint of the most recently lined expansion area, located on the east side of the original gypsum stack footprint (relative to the Plant coordinate system). Figures 3 and 4 provide topographic maps of the Rock Springs facility and phosphogypsum stack system.

The bottom elevation of the existing stack ranges from a low of about 6,580 feet (NGVD) beneath the west side of the original gypsum stacking area to a high of about 6,700 feet (NGVD) beneath the lined expansion area (Cells 6 and 7) on the east side of the site. Relative to surveyed spot elevations obtained in November 2018, the elevations of the perimeter gypsum dikes on top of the main body of the gypsum stack vary from 6,790 to 6,785 feet (NGVD), respectively, on the west side of Areas 1 and 2 and more on the order of 6,775 to 6,770 feet (NGVD) on the south and north sides of Areas 4 and 5. Elevations of the perimeter gypsum dikes in the lined expansion area are in the range of 6,715 to 6720 feet (NGVD), respectively, on the east and south sides of Area 6 and generally in the range of 6,725 to 6,720 feet (NGVD) on the east and north walls of Area 7.

The surface elevation in Cell 3 is similar to the elevation in Cell 5 but it is assumed that this area is in the process of being raised and will be joined with Cell 2 prior to the commencement of closure construction activities. Decanted process water from the stack currently flows by gravity through a perimeter ditch system to an existing lined process water surge pond and return water pump station located just south of the southwest corner of the gypsum stack. Return water is pumped from this pond back to the plant for reuse.

Based on seepage and stability analyses performed in prior years (see Ardaman report titled: “Engineering Evaluation and Recommendations for Proposed Gypsum Stack Expansion, SF

Phosphates Limited Company, Rock Springs, Wyoming", May 2001), seepage collection drains have been installed at vertical intervals around portions of the exterior walls of the gypsum stack. The primary purpose of these drains is to provide seepage control needed to improve the overall stability of the exterior slopes of the gypsum stack as the stack height increases with time. The seepage control provided by these drains has also allowed J.R. Simplot to cover and grass select portions of the gypsum stack side slopes in advance of final closure. In that regard, the closure plan presented herein assumes [redacted] have already been reclaimed and are not included in the final closure cost estimate.

WYOMING STATE MAP
NOT TO SCALE

TOWNSHIP: 18N
RANGE: 104W
OBTAINED FROM: USGS QUAD MAP:
ROCK SPRINGS, WYOMING
(PHOTO INSPECTED 1968, REVISED 1978)

SITE VICINITY MAP
SCALE: 1" = 2000'

SITE LOCATION MAP			
Ardaman & Associates, Inc. Geotechnical, Environmental and Materials Consultants			
J.R. SIMPLOT COMPANY CLOSURE COST ESTIMATES ROCK SPRINGS, WYOMING			
DRAWN BY: RDC	CHECKED BY: WAS	DATE: 04/05/19	
FILE NO. 16-13-0070B	APPROVED BY:	FIGURE: 1	

T:\Corporate\16\16-13-0070B\SIMPLOT ROCK SPRINGS – CLOSURE COST ESTIMATE_CURRENT SHEET SET\1 SITE LOCATION MAP.dwg 4/05/2019 12:08:25 PM, richard.clemons

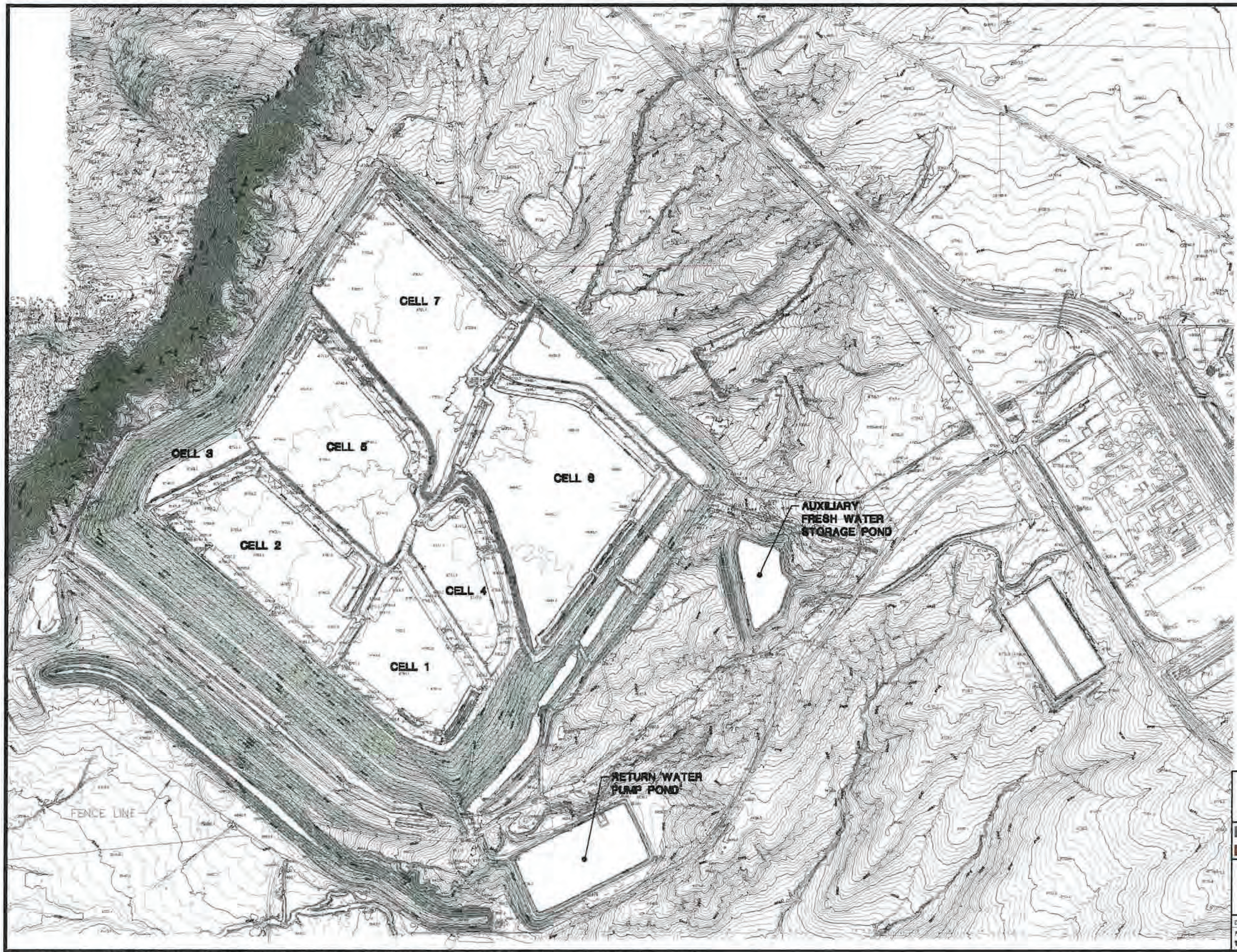
AERIAL PHOTOGRAPH OF PHOSPHOGYPSUM STACK SYSTEM

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING

DRAWN BY: RDC	CHECKED BY: WAS	DATE: 04/05/19
FILE NO. 16-13-0070B	APPROVED BY:	FIGURE: 2

T:\Corporate\16\16-13-0070B\SIMPLOT ROCK SPRINGS - CLOSURE COST ESTIMATE__CURRENT SHEET SET\2 AERIAL PHOTOGRAPH OF PHOSPHOGYPSUM STACK SYSTEM.dwg 4/05/2019 12:08:29 PM, richard.clemons



TOPOGRAPHIC MAP OF PLANT SITE AND GYPSUM STACK

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING

DRAWN BY: RDC	CHECKED BY: WAS	DATE: 04/05/19
FILE NO. 16-13-0070B	APPROVED BY:	FIGURE: 3

T:\Composite\16\16-13-0070B\SIMPLOT ROCK SPRINGS – CLOSURE COST ESTIMATE__CURRENT SHEET SET\3 TOPOGRAPHIC MAP OF PLANT SITE AND GYPSUM STACK.dwg 4/05/2019 12:08:41 PM, richard.clemons

TOPOGRAPHIC MAP OF STACK
EXISTING GEOMETRY

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING

DRAWN BY: RDC	CHECKED BY: WAS	DATE: 04/05/19
FILE NO. 16-13-0070B	APPROVED BY:	FIGURE: 4

T:\Corporate\16\16-13-0070B\SIMPLOT ROCK SPRINGS - CLOSURE COST ESTIMATE__CURRENT SHEET SET\4 TOPOGRAPHIC MAP OF STACK EXISTING GEOMETRY.dwg 4/05/2019 12:06:50 PM, richard.clemons

Section 2

INITIAL CLOSURE PLAN AND SCHEDULE

2.1 Closure Schedule

Although J.R. Simplot intends to continue to operate the Rock Springs facility going forward, the closure plan and cost estimates presented herein are based on an assumed terminal gypsum stack geometry that is represented by the existing stack geometry, projected upward after five years of continued stack operation [redacted] Closure in 2024, after disposal of [redacted] phosphogypsum and prior to construction of the next lateral expansion, is considered to represent the condition when the cost for closure, water management/treatment, and long-term care for the current lined footprint of the Rock Springs phosphogypsum stack system would be the most expensive.

The proposed water management plan for this facility relies on evaporation of a significant portion of excess process water during the initial 13-year period following deactivation, after which all drainage water seeping from the phosphogypsum stack will be treated with limestone and lime, with the treated water and associated lime sludge stored and evaporated in lined ponds that will be constructed on top of the closed phosphogypsum stack. The phosphogypsum stack system will be closed in phases as expeditiously as practicable. A discussion of the proposed closure phases and approximate schedule for implementation of each phase is provided below.

2.2 Closure Design Concepts

2.2.1 Overview

The phosphogypsum stack system will be closed in general accordance with the criteria contained in Appendix 1.C. of the proposed consent decree between the United States and J.R. Simplot (Appendix 1.C.). In general, evaporation will be used in the first phase of closure to evaporate process water, while side slopes and other parts of the stack will begin final grading and placement of a cover. The top surface area of the stack that is used for evaporation of process water and not used for lined sludge/evaporation ponds, will be flushed with treated water before closure. The proposed closure will consist of providing a final cover over the entire surface of the gypsum stack and associated process water ponds that will meet the performance standards of Appendix 1.C.. In particular, the top gradient of the gypsum stack and pond surfaces will be provided with a relatively impervious HDPE liner and protective vegetated soil cover that will be graded to promote drainage and minimize ponding of rain water or snow melt runoff on top of the lined surface. The side slopes of the stack will be provided with a final vegetated soil cover as needed to promote rainfall runoff and evapotranspiration, while reducing infiltration and controlling erosion of the side slope cover.

Considering continued gypsum stacking operations for a 5-year operation period, [redacted] the predicted average top elevation of the sedimentation ponds on the west side of the phosphogypsum stack (Cells 1 and 2 on Figure 2) will be just over 6,790 feet, NGVD. The top elevations will drop down from west to east in 10-foot increment to an average top elevation of just over 6,770 feet in Cells 6 and 7 on the east side of the stack. The predicted geometry in 2024 is shown in Figure 5.

Closure design concepts for the existing phosphogypsum stack system are illustrated on Figures 6 through 10, with their associated details presented in Figures 11 through 24. The assumed dimensions of the phosphogypsum stack system at the time of closure (i.e., prior to regrading), and used as the basis of the closure cost estimate presented herein, is tabulated below:

Closure Component	Estimated Area at Time of Closure (acres)
Total Lined Footprint*	420
Gypsum Stack Footprint	320
Final Top Area	205
Gypsum Side Slope Area	145
Return Water Surge Pond	15
*Includes 15 Acre Return Water Surge Pond	

2.2.2 Long-Term Care Plan

The long-term care plan includes the following elements:

- Surface water management: surface water runoff from the top of the closed phosphogypsum stack will be directed inboard by perimeter dikes to low points for controlled release through decant spillways and piping systems to the base of the stack. Section 2.4.3 describes the details of the management of surface water. Figure 10 presents the anticipated final geometry and conceptual surface water management plan of the gypsum stack after closure. Conceptual details of the proposed slope and toe ditch swales are illustrated on Figures 11 through 21. Costs associated with surface water management are shown in Table 3.1. This includes the costs for grading, and cover for the gypsum stack surfaces including swales.

- Seepage/leachate control: after final closure of the gypsum stack top ponds, seepage rates will diminish with time (see Figure 25). The reduced seepage flow will be collected in the existing surge pond and return water pump station and will be periodically treated/neutralized with limestone and lime. The treated water and lime sludge solids will be evaporated and stored in designated lined storage ponds on top of the closed gypsum stack. The seepage rate treated/neutralized after Year 12 is plotted as a function of time after closure in Figure 26. Costs associated with treatment of the leachate are described in section 3.3 and costs are shown in Table 3.3.

- Other activities associated with long-term care include groundwater monitoring, wildlife control, security, and land surface care. The facility already has a fence around the perimeter of the gypsum stack to act as a deterrent for both human and wildlife access. Also, the facility already uses propane cannons as a way of discouraging birds from using the return pond. Costs associated with these activities are found in Table 3.4.

2.2.3 Management of Treatment Solids

Lined ponds will be built on top of the gypsum stack and will be used for treated water evaporation and lime sludge storage. These ponds will eventually be closed by dewatering, drying and stabilization of the sedimented solids to the degree necessary to facilitate placement of a 1-foot thick, vegetated soil cover. Further discussion on the management of treatment solids is found on pages 2-8, 2-10, 2-13 and Table 3.1 (cost information).

2.3 **Process Water Management During Closure**

The closure schedule for the Rock Springs phosphogypsum stack system will be dictated to a certain extent by the need to store and manage/treat existing process water inventories during the closure period. Primary factors include the process water inventory at the time of plant shutdown, available storage capacity within the process water containment system, post-shutdown water balance, process water seepage rates from the closed phosphogypsum stack and the ability to transfer and manage/treat water volumes throughout the closure period.

Unlike the humid subtropical climate in the southeastern U.S., where annual rainfall normally exceeds lake evaporation, the climate in the Rock Springs area is cold, semiarid, with evaporation rates far exceeding precipitation. The average rainfall near the Rock Spring plant is on the order of 8.4 inches per year, with lake or pond evaporation rates of 46.2 inches per year, equating to a net ponded area evaporation loss of about 37.8 inches per year. Given the high evaporation rates for this area, the proposed water management plan for the Rock Springs facility differs from those used in the humid subtropical climate of the Southeast U.S. During the first 13 years after the phosphoric acid plant ceases operations and the slopes of the phosphogypsum stack are being closed, any remaining ponded water as well as consolidation and drainage water seeping from the stack will be allowed to partially evaporate using pond or spray irrigation on top of the phosphogypsum stack and seep back into the stack, where it will be retained by surface water tension and adsorption in the phosphogypsum above the phreatic surface (water table) in the stack.

Construction of a treatment plant will begin on or before year 12. Drainage water seeping from the phosphogypsum stack will be neutralized with limestone and lime and then evaporated in lined sludge/evaporation ponds constructed on top of the closed phosphogypsum stack. This treatment (neutralization) will begin in year 13 of the closure along with continued partial evaporation of the drainage water. All gypsum stack drainage water (process water/leachate) will be treated in year 14. The sludge/evaporation ponds will ultimately be closed by dewatering, drying and stabilization of the sedimented solids, and placement of a 1-foot thick, vegetated soil cover.

The areas on top of the phosphogypsum stacks that are used for spray irrigation and evaporation and not used for lined sludge/evaporation ponds will be lined with 40-mil HDPE, covered with 2 feet of soil and planted in native vegetation. Prior to lining these areas, the upper one to two feet of phosphogypsum will be flushed with treated water. The depth of treated water applied will not be less than 4 inches over the entire surface to be covered.

2.3.1 Existing Process Water Inventories

The Rock Springs gypsum storage area has historically been operated with only limited process water inventories (see Figure 2). Clarified return water from the sedimentation ponds on top of the gypsum stack is decanted through various water level control structures into perimeter process water flow channels provided on the east and south sides of the gypsum stack, which, in turn, route the decanted process water back to a lined return water surge pond and pump station, located on the south side of Area 1 within the original gypsum stack footprint. Utilizing the October 2009 aerial photograph and topographic map, in conjunction with the other historical maps and information provided by J.R. Simplot personnel, [redacted] This estimated volume is for ponded water only and does not include consolidation and drainage water that will seep out of the phosphogypsum stack over time. An estimate of the drainable pore volume within the gypsum stack is provided below.

2.3.2 Drainage Characteristics of Existing Gypsum Stack

The sedimented gypsum contained in the Rock Springs gypsum stack is for the most part fully saturated with process water entrained within the pores of the individual gypsum crystals or particles. After the plant and gypsum stack are shut down (i.e., no gypsum slurry or process water pumped to the top of the stack), the entrained water in the pore spaces of the sedimented gypsum will drain from the stack by gravity over a period of time. Since the gypsum storage area is provided with a 60-mil HDPE bottom liner, any water that drains from the stack with time will be collected in the existing or proposed seepage collection drains and/or in the existing perimeter flow channels at the toe of the stack. As the closed stack drains with time, the rate of seepage entering the seepage collection drains or perimeter flow channel will likewise diminish. The rate at which pore water drains from the stack is a key factor needed for development of a detailed water management plan at the time of final closure.

Gypsum stack consolidation and drainage rates used for the closure plan and schedule presented herein were estimated using a phosphogypsum stack seepage model developed on an Excel spreadsheet. The seepage model takes into consideration the varying height, geometry, initial and final density, hydraulic conductivity, and drainable porosity of the sedimented gypsum. Material properties used to develop the relationships needed for the drainage model were obtained from a previous engineering evaluation of the Rock Springs gypsum stack (see Ardaman report titled: “Engineering Evaluation and Recommendations for Proposed Gypsum Stack Expansion, SF Phosphates Limited Company, Rock Springs, Wyoming”, May 2001). The Excel spreadsheet was developed by Ardaman & Associates and reviewed by EPA and its consulting expert.

[redacted]

[redacted]

[redacted]

2.3.3 Process Water Evaporation

Considering an initial ponded area [redacted] for ponds on top of the gypsum stack and a net evaporation rate of 37.8 inches per year, it is theoretically possible to evaporate [redacted] provided that the ponds are kept fully ponded or fully surface wetted. Using water management techniques (recycling water collected in perimeter flow channels and the seepage collection drains back to the top of the stack to keep the uppermost compartments ponded and/or surface wet), all of the water that seeps from the stack and any remaining ponded water can be evaporated from the top gradient of the phosphogypsum stack. During the first 13 years after closure, the process water will be partially evaporated and allowed to seep back into the top of the stack where it will be retained by surface water tension in the phosphogypsum above the phreatic surface. After 13 years, water seeping from the stack will be neutralized using limestone to a pH of approximately 4 and then lime to a pH of approximately 7. The treated water and sludge will be pumped back to lined ponds constructed on top of the stack where the treated water will be evaporated.

The conceptual water management plan during closure is to maximize evaporation rates from the gypsum stack top ponds by initially recycling collected seepage and free water back to the top of the stack in such a manner as to keep the surface area fully ponded or surface wet. Irrigation piping will be used as needed to distribute the water over the top gradient of the stack when the volume of water collected from stack seepage is no longer enough to pond the entire top surface. During years 12 and 13, three of the existing top ponds will be lined to provide sufficient area (75 acres) to evaporate treated water and store lime residue from the treatment process. After year 13, process water evaporation from the remaining ponds will cease and the remaining top ponds will be graded as needed for proper drainage, lined with the rule-specified 40-mil liner, and capped with a 2-foot thick protective soil cover. The final geometry of the top gradient is shown on Figure 10.

The water balance and drainage model used to develop this closure plan indicates that the irrigation area required to evaporate all the stack seepage will reduce over time [redacted] To distribute the partially evaporated water as evenly as possible over the top surface of the stack, the irrigation area will [redacted] until year 11 by reducing the time the irrigation system is operated each day. Seepage rates should be reduced sufficiently by year 13 to allow all collected water to be adequately managed in the return water pond, without pumping any untreated water back to the top of the gypsum stack. The return water pump pond will need to remain in place for another 50 years or until all of the seepage water can be contained prior to treatment in a surge tank.

2.3.4 Environmental Considerations

The closure plan for the gypsum stack incorporates several features for additional protection of the environment.

Fluoride Emissions

During the closure process, one objective is that the phosphogypsum water will be managed so that fluoride atmospheric emissions will be no more than the emissions during plant operation. In general, fluoride emissions from a closed gypsum stack are expected to be lower than those in an operating stack for two reasons: the vapor pressure of fluoride gases will be reduced because the process water will be at a much lower temperature (and thus less likely to result in fugitive air emissions) and fluoride will be removed from the process water due to adsorption onto compounds in the gypsum stack or from the formation of solid calcium fluoride compounds in the gypsum stack.

Estimating fluoride emissions from phosphogypsum stacks has a number of technical challenges. Thus, measurement methodologies have limitations. Potential methods include spectroscopy techniques or a mass balance approach.

A mass balance model was reviewed by Simplot, EPA, and EPA's consulting expert. The recommended method of demonstration uses a monthly measurement (weather permitting) of the fluoride concentrations in the applied water and the water that accumulates during a 24-hour period in a shallow pan placed within the irrigation area. The measured concentrations can be used to compute [see Equation-1] the ratio of the mass of fluoride emitted during spray irrigation/evaporation to the mass of fluoride emitted from both solar and heat load evaporation during normal plant operations.

$$\text{[Eqn-1] Mass Ratio} = F_e A_e T_e / F_o A_o / 24,$$

where F_e is the dissolved fluoride concentration (mg/L) in the liquid accumulated in the pan located in the Sprayfield, A_e is the area (acres) of the Sprayfield, T_e is the duration (hours) of spray irrigation, F_o is the average concentration (mg/L) of dissolved fluoride in the process water during normal plant operations, and A_o is the ponded area (acres) on top of the operating stack system at the time of plant shut down.

Fluoride concentration would be measured (as permitted by the weather) in the liquid accumulating during a 24-hour period in a shallow pan placed at several locations within the Sprayfield at least once per month during Sprayfield operation and reported, along with the area of the Sprayfield and the duration of spraying quarterly. The average concentration of fluoride in the process water measured during the last year of normal operations and the size of the ponded area on top of the operating stack would be included in the quarterly report. The output of Equation-1 can be used to adjust either the size of the application area, the application period, or both to achieve this objective.

Based on an analysis performed by EPA's consultant, the fluoride emission objective will be met if the mass ratio is less than or equal to 2.5[1]. Other analytical methods or measurement techniques could also be used. These alternate methods, upon review and approval by EPA and Simplot, could be used to demonstrate achievement of this objective.

Wildlife

Currently, the facility utilizes a fence and propane cannons to reduce the potential for wildlife entering the phosphogypsum system. [The cannons are used at the return pond to discourage birds from landing.] During closure, the fence will remain in place and hazing methods (such as the propane cannons) will continue to be used to discourage birds from landing.

"Flush" of Gypsum Stack Surface

The areas on top of the phosphogypsum stacks that are used for spray irrigation and evaporation and not used for lined sludge/evaporation ponds will be lined with 40-mil HDPE, covered with 2 feet of soil and planted in native vegetation. Prior to lining these areas, the upper one to two feet of phosphogypsum will be flushed with treated water. The depth of treated water applied will not be less than 4 inches over the entire surface to be covered. This flush will reduce the acidity of the upper zone of the gypsum stack.

2.4 Key Elements of Closure Design, Long-Term Care and Treatment Solids

The Rock Springs phosphogypsum stack system will be closed in general accordance with the requirements of Appendix 1.C. In general, the proposed closure will consist of providing a final cover over the entire surface of the gypsum stack and associated water flow channels and storage ponds that will meet the specified performance standards. In particular, the top gradient of the stack and associated ponds will be provided with a relatively impervious liner and protective cover that will be graded to promote drainage and minimize ponding of water on top of the lined surface. The side slopes of the stack will be provided with a final vegetated soil cover as needed to promote

[1] The ratio of 2.5 was derived from the mass of water that evaporates from a ponded area on top of the Simplot Stack at Rock Springs from both solar and heat load evaporation and the mass of water that would evaporate from the same ponded area due solely to solar evaporation.

rainfall runoff and evapotranspiration, while reducing infiltration and controlling erosion of the side slope cover. Conceptual details of the proposed closure are discussed below.

2.4.1 Gypsum Stack Top Gradient and Capping

Appendix 1.C. requires, upon closure, that all phosphogypsum stacks be provided with a continuous, low permeability soil barrier or a relatively impervious geomembrane liner over the top gradient of the stack. If clay borrow materials are not locally available for a soil liner that meets the specified permeability criteria, an impervious geomembrane is typically used as the top liner.

For cost estimating purposes, the conceptual design of the final cover for the top of the Rock Springs phosphogypsum stack utilizes the alternate cover design consisting of a synthetic geomembrane with a vegetated, 24-inch thick protective layer of clean soil obtained from locally available borrow sources. A typical cross section of the closed gypsum field and a design detail for the proposed synthetic liner and top cover is provided on Figures 22 and 23. 60-mil HDPE liner will be used for the lined lime sludge/evaporation pond, while 40-mil liner will be used for the remaining top ponds not utilized for treated water evaporation.

Figure 10 conceptually presents the anticipated final geometry and layout of the closed gypsum stack and the probable location of surface water control structures. In general, the top grading plan for the gypsum stack will provide positive gradients that will promote rainfall runoff and minimize water ponding on top of the lined surface. A perimeter dike will be provided around the top edge of the gypsum stack to prevent rainfall runoff from discharging down the side slopes of the stack in an uncontrolled manner. Rainfall runoff on top of the stack will, instead, be directed inboard to low points in each compartment, where decant spillways and piping systems will provide controlled release to, or beyond, the base of the stack. The locations of the decant spillways may differ from those shown, based on the actual stack geometry and location of the low points at the time the stack is deactivated.

2.4.2 Gypsum Stack Side Slope Grading and Cover

Although the lower side slopes of the existing gypsum stack are typically flatter than 3.0 horizontal to 1.0 vertical, the slopes around the upper perimeter of the active storage compartments are steeper and will need to be flattened to no steeper than 3.0 horizontal to 1.0 vertical. The existing side slopes are presently stable and should become more stable as the gypsum stack begins to drain, dewater and settle after closure.

For cost estimating purposes, it is assumed that the final cover on the side slopes of the stack will consist of a 12-inch layer of soil that will support a drought-resistant vegetation cover to provide erosion control, increase evapotranspiration, reduce side slope infiltration and make the closed facility more aesthetically pleasing. Approximately 43 acres of the existing side slope area have already been reclaimed (covered with soil and grassed) and are not included in the final closure cost estimate presented herein.

2.4.3 Surface Water Management

Surface water runoff from the top of the closed phosphogypsum stack will be directed inboard by perimeter dikes to low points for controlled release through decant spillways and piping systems to the base of the stack. Runoff from the lower portion of the side slope will flow directly downgradient to a lined toe swale at the base of the stack. The slope of the swale (i.e., along the swale alignment) will generally be less than 0.2 percent. This is a relatively flat slope, which, for small rainfall events will result in relatively low flow velocities and correspondingly long retention periods. To minimize the infiltration of runoff collected on and routed along the benches, each swale will be provided with an impervious liner. For cost estimating purposes, it is anticipated that the runoff swales will be lined with a textured 60-mil HDPE liner, covered with a 24-inch thick protective soil cover, similar in design to that used for the gypsum stack top cover. Conceptual details of the proposed slope and toe ditch swales are illustrated on Figures 11 through 21.

Figure 10 presents the anticipated final geometry and conceptual surface water management plan of the gypsum stack after closure. As noted by the directional arrows shown on this figure, runoff from the top and side slopes of the gypsum stack will be discharged into the toe ditch swale and routed to the south side of the stack for discharge into a lined detention pond that will be constructed along the alignment of the original earthen starter dike for the gypsum stack. This pond, in turn, will provide controlled release of runoff from the closed facility to the freshwater retention pond. It should be noted that since all surfaces of the closed facility will be covered by not less than 12 inches of vegetated soil cover, runoff quality should be suitable for offsite discharge with no additional treatment.

2.4.4 Seepage/Leachate Control

Closure of the gypsum stack side slopes will require that portions of the existing side slopes be flattened and that additional seepage collection drains be provided at intervals on the slope and at the downstream toe of the gypsum to intercept process water seepage and route it back to the return water pump station for recycling to evaporation ponds located on top of the gypsum stack and eventually to the process water treatment plant. Based on the anticipated final stack geometry presented on Figure 10, it is estimated that seepage rates from the stack will initially be high, [redacted] but will further diminish significantly with time as the stack drains (See Figure 25). After final closure of the gypsum stack top ponds, seepage rates will diminish with time. The reduced seepage flow will be collected in the existing surge pond and return water pump station and will be periodically treated/neutralized with limestone and lime. The treated water and lime sludge solids will be evaporated and stored in designated lined storage ponds on top of the closed gypsum stack. The seepage rate treated/neutralized after Year 12 is plotted as a function of time after closure in Figure 26. It may be possible that the seepage rate is reduced sufficiently in the latter years of closure that an alternate method for managing the leachate can used rather than lime treatment.

The return water pump station pond will not be closed immediately but will remain open after final closure of the gypsum stack is complete to collect and evaporate residual process water seepage collected after the gypsum stack is closed.

[redacted]

2.4.5 <u>Closure Techniques for Treatment Solids and Other Ponds</u>

Three of the previously lined gypsum sedimentation ponds on top of the gypsum stack will ultimately be used for treated water evaporation and lime sludge storage. These ponds will eventually be closed by dewatering, drying and stabilization of the sedimented solids to the degree necessary to facilitate placement of a 1-foot thick, vegetated soil cover.

The return water surge/pump pond will be used on a long-term basis to collect and manage small quantities of process water seepage collected after final closure of the gypsum stack is complete. Closure of this pond will need to be delayed until seepage quantities are reduced to insignificant levels that can be managed by a smaller sump and pump station. Closure of the return water pond will be accomplished by pushing down the side slopes and re-grading the surface of the pond in such a manner as to shed rainfall runoff/runon away from the original pond footprint. The regraded pond surface will be capped with a 40-mil HDPE liner and covered with a 2-foot protective cover of locally available soil borrow.

2.5 Phased Closure Construction Schedule

As discussed above, the proposed water management plan for this facility will rely on evaporation of excess process water instead of treatment and discharge. The closure schedule, therefore, will be determined by the need to store and manage process water inventories during the closure period. The following is an approximate plan and schedule for how the phosphogypsum stack system will be closed in phases as expeditiously as practicable.

Closure Years 1 through 5

- Continue to pump process water collected in the surge pond and return water pump station back to the top of existing gypsum stack for water management and evaporation. Portions of these ponds may need to be reconfigured and regraded to some degree to increase wetted surface water areas to maximize evaporation rates and accommodate the irrigation system.

- It is assumed that a two-year idle period will be required for permitting and the preparation of detailed plans and specifications and contract documents before any closure construction activities can commence. Initial closure activities will be limited to side slope areas that are not being used to store or evaporate excess process water or in active portions of the lined return water flow channel to the surge pond and return water pump station. Initial closure construction activities may include some of the following:

- Bench and install seepage collection drains on the side slopes of the gypsum stack at locations where they do not already exist.

- Install perimeter seepage collection toe drains on the north and west sides of the gypsum stack and at any other locations that are not being used as return water flow channels.

- Construct lined surface water swales and toe ditches on the north and west sides of the stack.

- Once seepage has subsided, finish grade, amend and cover side slopes of gypsum stack with 12-inches of locally available soil and grass/vegetate slopes.

- Grade and construct lined surface water detention pond on west side of gypsum stack. The detention pond will be provided with a 60-mil HDPE bottom liner and a vegetated, two-foot thick vegetated soil cover. All surface water runoff from the closed stack side slopes will be routed through this pond.

Phase 2 – (Years 6 through 15)

- All top ponds will be used on an as needed basis for process water irrigation and evaporation through year 11.

- On or before year 12, J.R. Simplot will begin construction of a double lime treatment plant that will be capable of treating all gypsum stack drainage water by year 14. It is also anticipated that by the end of year 13, three of the existing top ponds that will ultimately be used for lime sludge storage and evaporation of treated water will be regraded and provided with a 60-mil HDPE bottom liner.

- Lining of the remaining top ponds will commence after year 13 and should be complete by the end of year 15. Final cover will include a 40-mill HDPE liner covered with a protective, two-foot thick vegetated soil cover. Surface water control structures will be installed as needed to direct runoff from the closed top ponds to perimeter surface water swales or ditches and then to the lined detention pond on the west side of the gypsum stack.

- Process water treatment will commence during year 13, which will require that the proposed process water treatment plant be installed and fully operational by that time. Partial evaporation of drainage (process water) will continue in year 13 while the treatment plant is being brought into service. All gypsum stack drainage water (process water/leachate) will be treated in year 14.

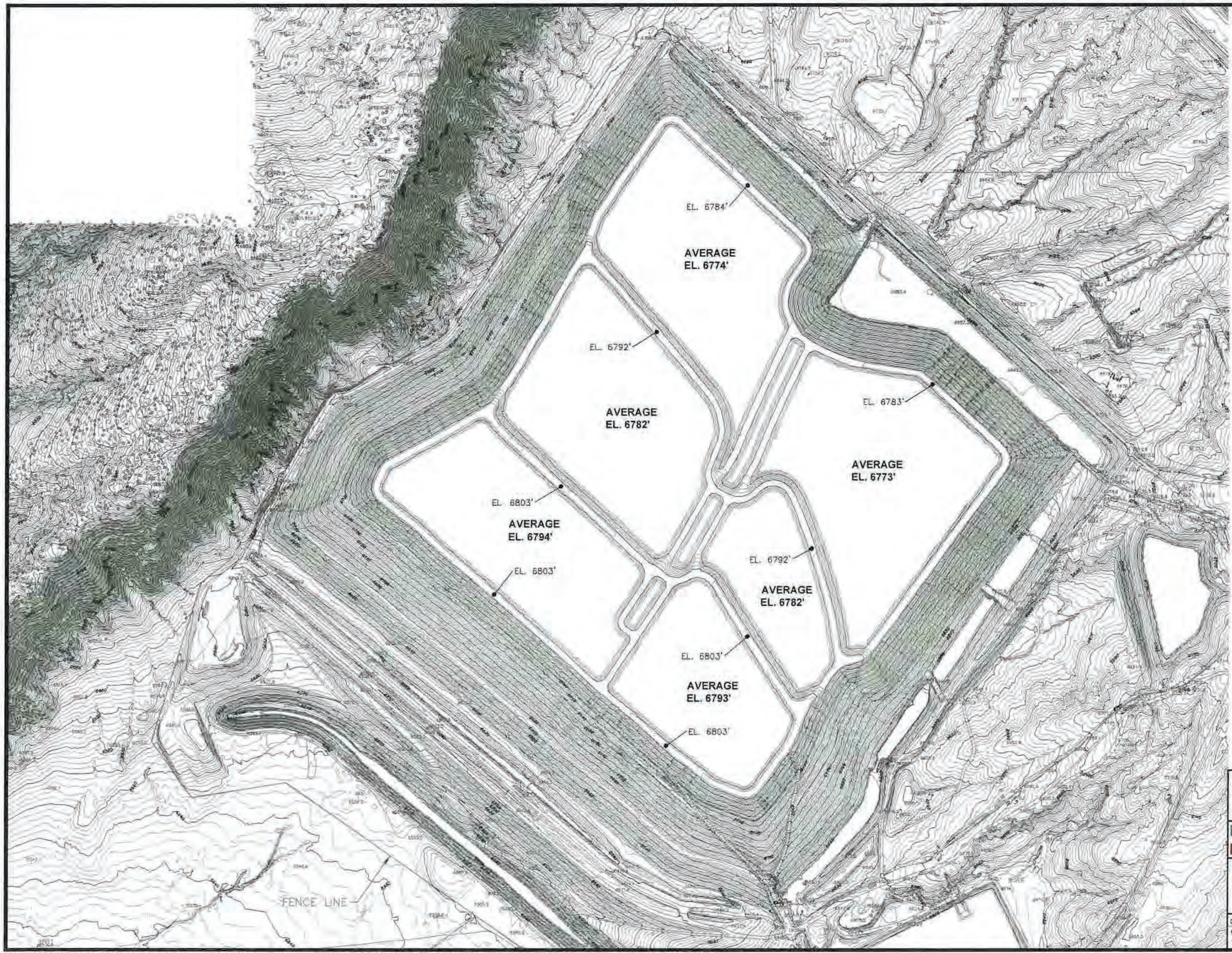
Phase 3 – (Years 16 through 50)

- After closure of the top ponds, bench and install seepage collection drains on the remaining side slopes of the gypsum stack at locations where they do not already exist.

- Install perimeter seepage collection toe drains on the east and south sides of the gypsum stack once the return water flow channel has been taken out of service.

- Lined lime sludge storage and evaporation ponds on top of the closed stack will be closed incrementally once seepage rates from the closed phosphogypsum stack have reduced sufficiently to warrant closure. Closure of the sludge ponds will include dewatering and drying of the lime sludge materials to a stable consistency that will allow placement of a one-foot thick, vegetated soil cover. Any exposed HDPE liner materials on the side slopes of the pond, above the top surface of the lime deposits will be covered with a protective, two-foot thick vegetated soil cover.

- There is a fifty-year long-term care and maintenance program for the closed facility will commence once final closure activities are complete and certified.



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TOPOGRAPHY FROM AERIAL PHOTOGRAPH DATED SEPTEMBER 23, 2016

TRUE NORTH
32°32'40"
PLANT NORTH

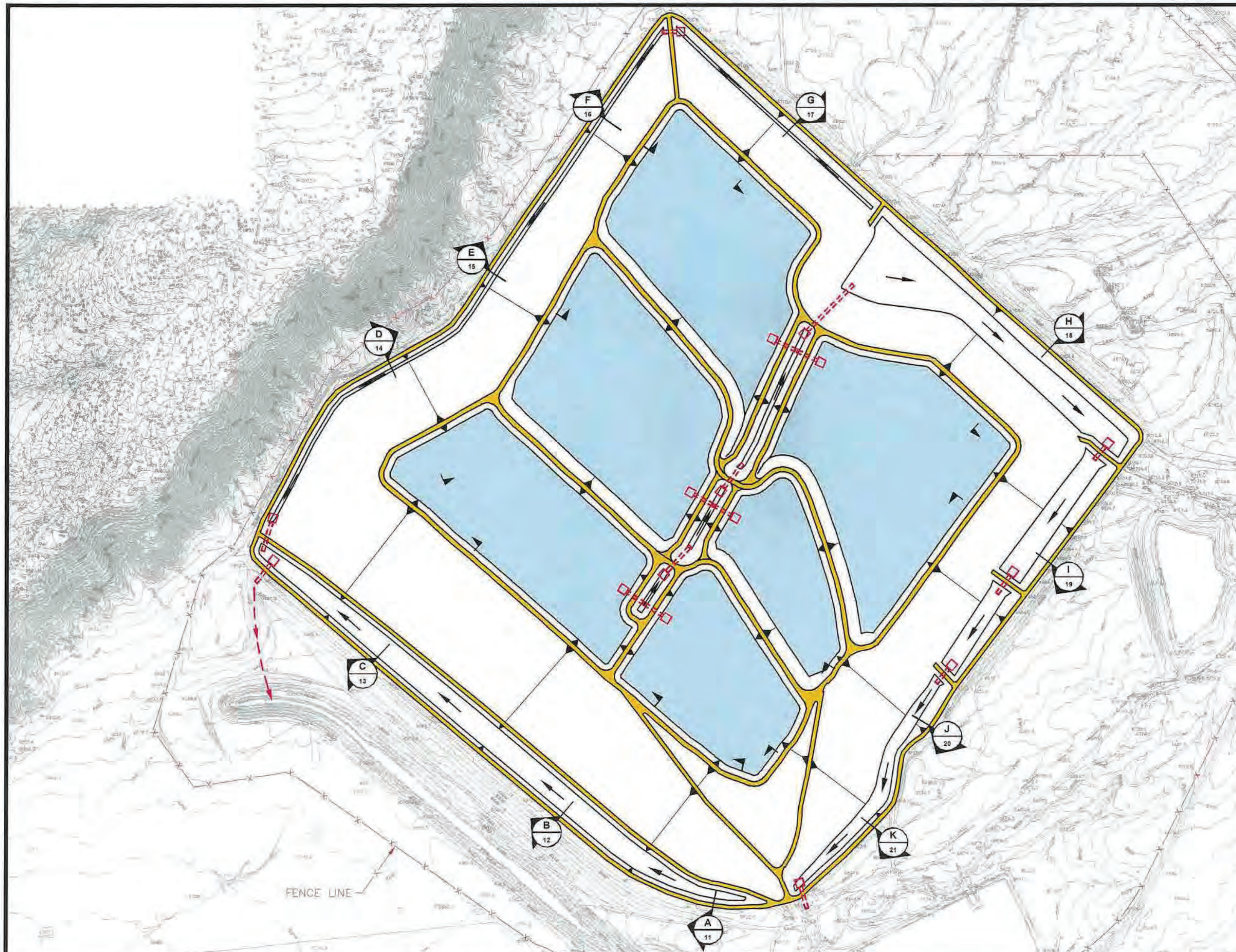
PROPOSED STACK GEOMETRY AFTER 5 YEARS OF OPERATION

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING

DRAWN BY: RDC	CHECKED BY: WAS	DATE: 04/05/19
FILE NO. 16-13-0070B	APPROVED BY:	FIGURE: 5

T:\Corporate\16\16-13-0070B\SIMPLOT ROCK SPRINGS - CLOSURE COST ESTIMATE__CURRENT SHEET SET\5 PROPOSED STACK GEOMETRY AFTER 5 YEARS OF OPERATION.dwg 4/05/2019 12:11:10 PM, richard.clemons



LEGEND

- WATER LEVEL CONTROL STRUCTURE
- TEMPORARY UNLINED EVAPORATION AREA ON TOP OF GYPSUM STACK
- SURFACE WATER DIVERSION SWALE/DITCH (WATER PRESENT ONLY DURING STORM EVENTS)
- DIKE OR ACCESS ROAD
- FLOW DIRECTION OF SURFACE WATER RUNOFF DURING STORM EVENTS

NOTE

ACTUAL GRADING PLAN MAY VARY DEPENDING ON FINAL POST-CLOSURE TOPOGRAPHY, YET TO BE DETERMINED

CONCEPTUAL LAYOUT OF GYPSUM STACK SYSTEM DURING INITIAL CLOSURE

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING

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FILE NO. 16-13-0070B	APPROVED BY:	FIGURE: 6			

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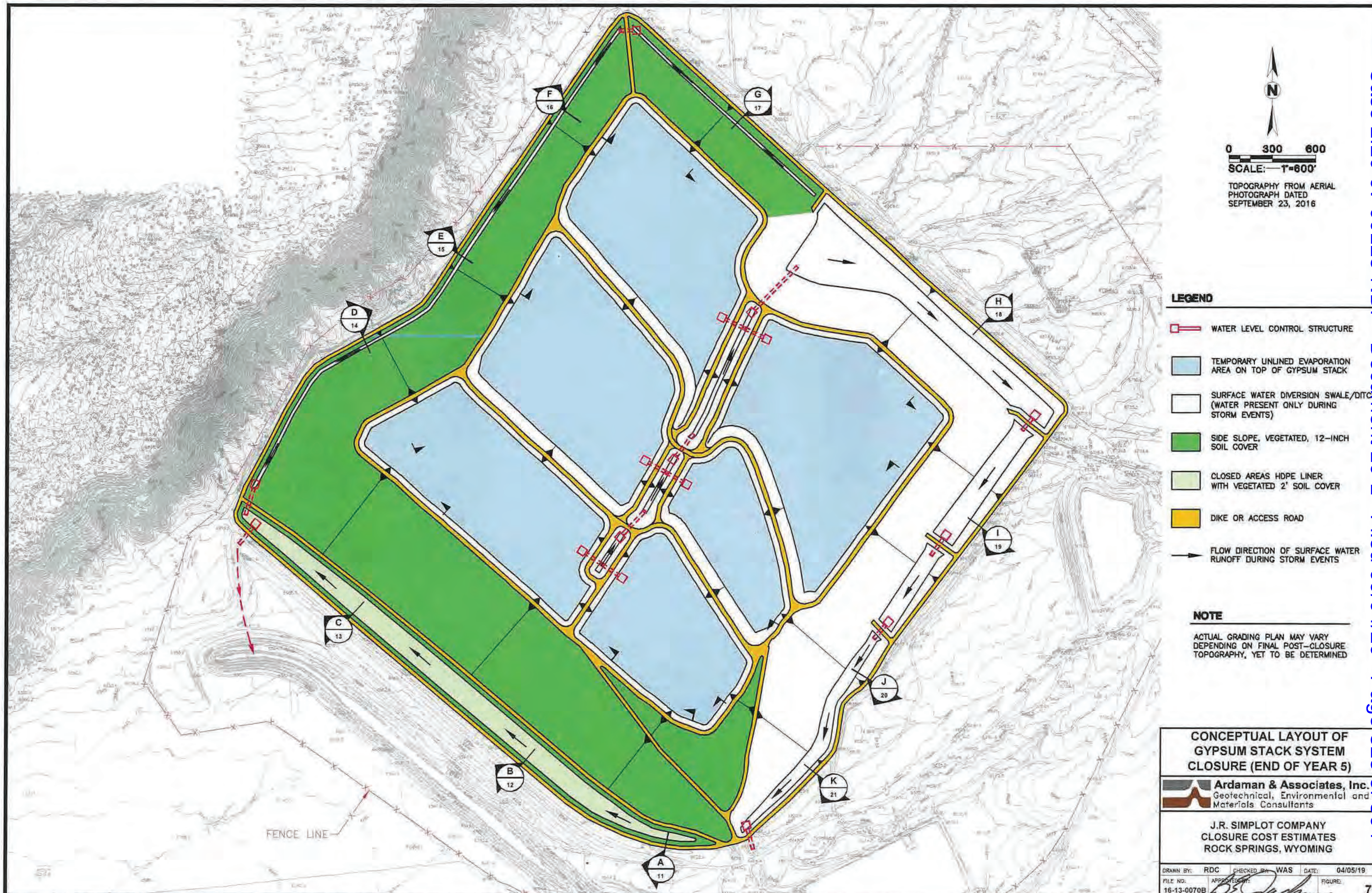
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TOPOGRAPHY FROM AERIAL PHOTOGRAPH DATED SEPTEMBER 23, 2016
LEGEND
WATER LEVEL CONTROL STRUCTURE
TEMPORARY UNLINED EVAPORATION AREA ON TOP OF GYPSUM STACK
SURFACE WATER DIVERSION SWALE/DITCH (WATER PRESENT ONLY DURING STORM EVENTS)
SIDE SLOPE, VEGETATED, 12-INCH SOIL COVER
CLOSED AREAS HDPE LINER WITH VEGETATED 2' SOIL COVER
DIKE OR ACCESS ROAD
FLOW DIRECTION OF SURFACE WATER RUNOFF DURING STORM EVENTS
NOTE
ACTUAL GRADING PLAN MAY VARY DEPENDING ON FINAL POST-CLOSURE TOPOGRAPHY, YET TO BE DETERMINED
FENCE LINE
CONCEPTUAL LAYOUT OF GYPSUM STACK SYSTEM CLOSURE (END OF YEAR 5)
Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants
J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING
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FIGURE: 7
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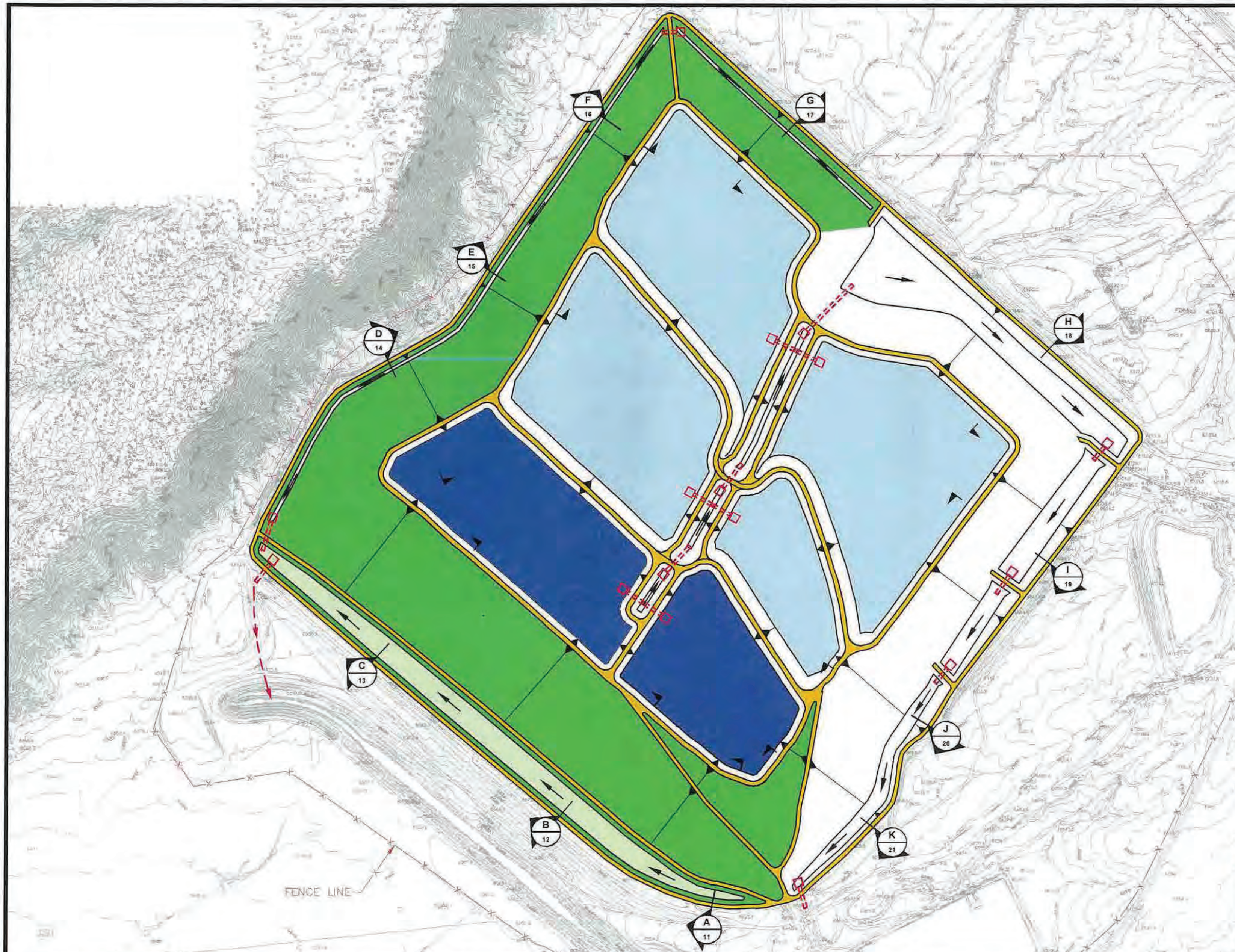

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TOPOGRAPHY FROM AERIAL PHOTOGRAPH DATED SEPTEMBER 23, 2016

LEGEND

- WATER LEVEL CONTROL STRUCTURE
- TEMPORARY UNLINED EVAPORATION AREA ON TOP OF GYPSUM STACK
- SURFACE WATER DIVERSION SWALE/DITCH (WATER PRESENT ONLY DURING STORM EVENTS)
- SIDE SLOPE, VEGETATED, 12-INCH SOIL COVER
- CLOSED AREAS HDPE LINER WITH VEGETATED 2' SOIL COVER
- DIKE OR ACCESS ROAD
- LIME SOLIDS STORAGE/TREATED WATER EVAPORATION POND, 60-MIL HDPE BOTTOM LINER
- FLOW DIRECTION OF SURFACE WATER RUNOFF DURING STORM EVENTS

NOTE

ACTUAL GRADING PLAN MAY VARY DEPENDING ON FINAL POST-CLOSURE TOPOGRAPHY, YET TO BE DETERMINED

CONCEPTUAL LAYOUT OF GYPSUM STACK SYSTEM CLOSURE (END OF YEAR 12)

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING

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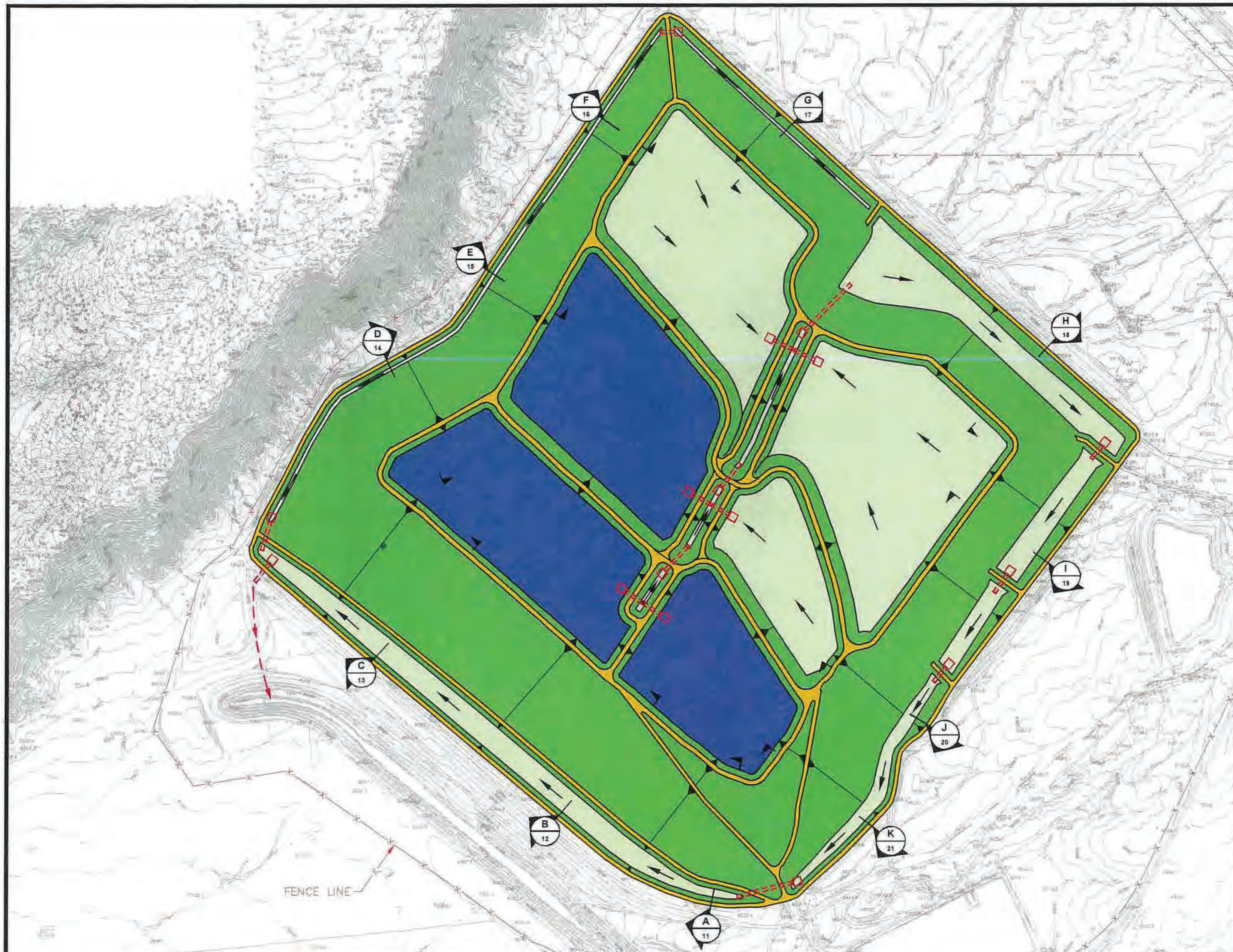

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TOPOGRAPHY FROM AERIAL PHOTOGRAPH DATED SEPTEMBER 23, 2016

LEGEND

- WATER LEVEL CONTROL STRUCTURE
- SURFACE WATER DIVERSION SWALE/DITCH (WATER PRESENT ONLY DURING STORM EVENTS)
- SIDE SLOPE, VEGETATED, 12-INCH SOIL COVER
- CLOSED AREAS HDPE LINER WITH VEGETATED 2' SOIL COVER
- DIKE OR ACCESS ROAD
- LIME SOLIDS STORAGE/TREATED WATER EVAPORATION POND, 60-MIL HDPE BOTTOM LINER
- FLOW DIRECTION OF SURFACE WATER RUNOFF DURING STORM EVENTS

NOTE

ACTUAL GRADING PLAN MAY VARY DEPENDING ON FINAL POST-CLOSURE TOPOGRAPHY, YET TO BE DETERMINED

CONCEPTUAL LAYOUT OF GYPSUM STACK SYSTEM CLOSURE (END OF YEAR 15)

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING

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FILE NO. 16-13-0070B	APPROVED BY:	FIGURE: 9

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TOPOGRAPHY FROM AERIAL PHOTOGRAPH DATED SEPTEMBER 23, 2016
LEGEND
WATER LEVEL CONTROL STRUCTURE
SURFACE WATER DIVERSION SWALE/DITCH (WATER PRESENT ONLY DURING STORM EVENTS)
SIDE SLOPE, VEGETATED, 12-INCH SOIL COVER
CLOSED AREAS HDPE LINER WITH VEGETATED 2' SOIL COVER
CLOSED LIME SOLIDS SETTLING POND WITH VEGETATED 1' SOIL COVER
DIKE OR ACCESS ROAD
FLOW DIRECTION OF SURFACE WATER RUNOFF DURING STORM EVENTS
NOTE
ACTUAL GRADING PLAN MAY VARY DEPENDING ON FINAL POST-CLOSURE TOPOGRAPHY, YET TO BE DETERMINED
FENCE LINE
CONCEPTUAL LAYOUT OF GYPSUM STACK SYSTEM CLOSURE (FINAL)
Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants
J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING
DRAWN BY: RDC
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FIGURE: 10
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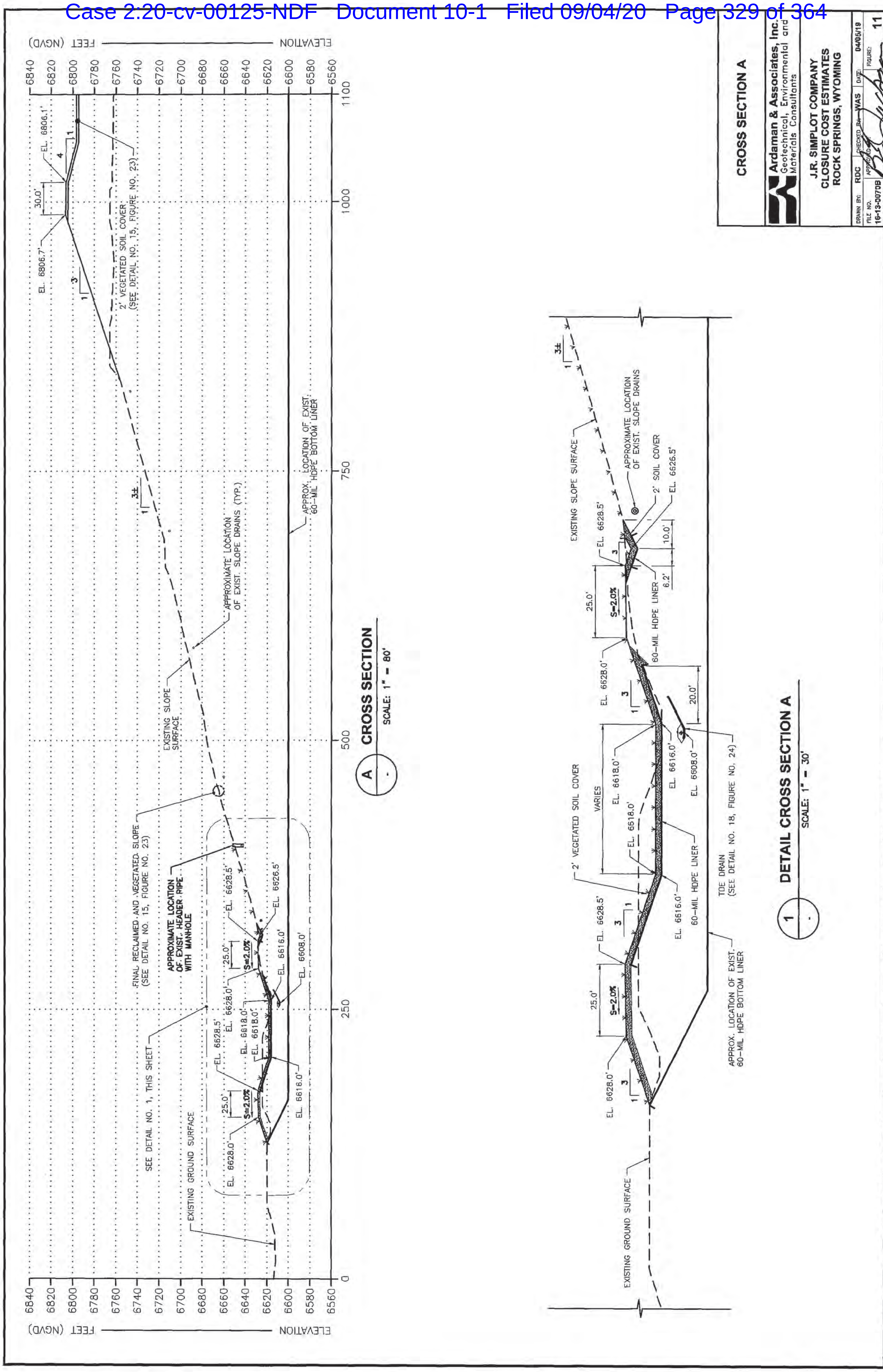
CROSS SECTION A
SCALE: 1" = 80'
DETAIL CROSS SECTION A
SCALE: 1" = 30'
ELEVATION FEET (NGVD)
EXISTING GROUND SURFACE
SEE DETAIL NO. 1, THIS SHEET
FINAL RECLAIMED AND VEGETATED SLOPE (SEE DETAIL NO. 15, FIGURE NO. 23)
APPROXIMATE LOCATION OF EXIST. HEADER PIPE WITH MANHOLE
EXISTING SLOPE SURFACE
APPROXIMATE LOCATION OF EXIST. SLOPE DRAINS (TYP.)
APPROX. LOCATION OF EXIST. 60-MIL HDPE BOTTOM LINER
2' VEGETATED SOIL COVER (SEE DETAIL NO. 15, FIGURE NO. 23)
EL. 6806.7'
EL. 6806.1'
TOE DRAIN (SEE DETAIL NO. 18, FIGURE NO. 24)
60-MIL HDPE LINER
2' SOIL COVER
APPROXIMATE LOCATION OF EXIST. SLOPE DRAINS
CROSS SECTION A
Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants
J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING
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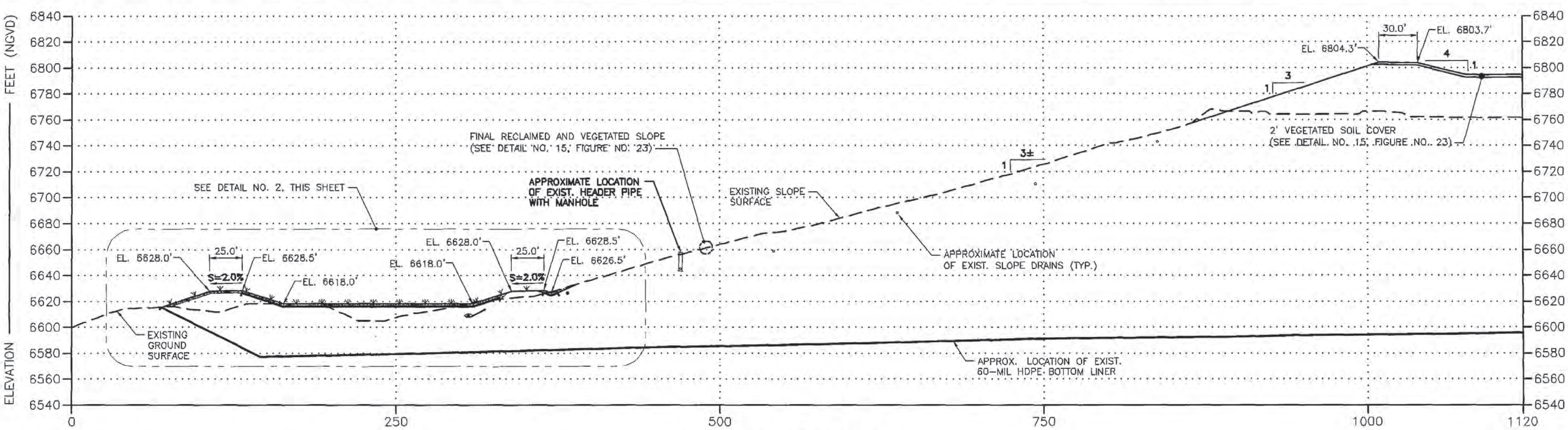
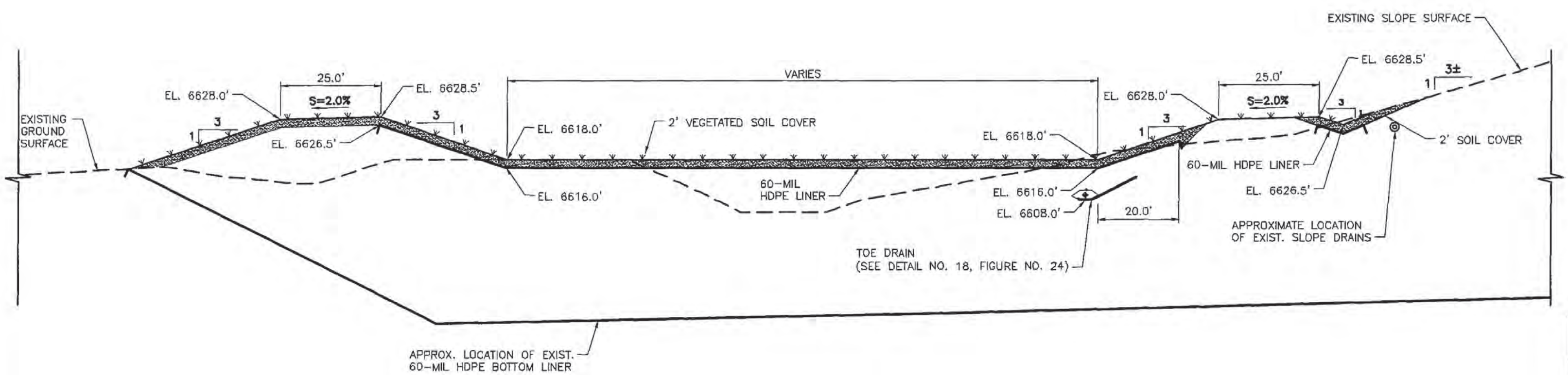
DATE: 04/05/19
FILE NO. 16-13-0070B
FIGURE: 11



B **CROSS SECTION**

SCALE: 1" = 80'



2 **DETAIL CROSS SECTION B**

SCALE: 1" = 30'

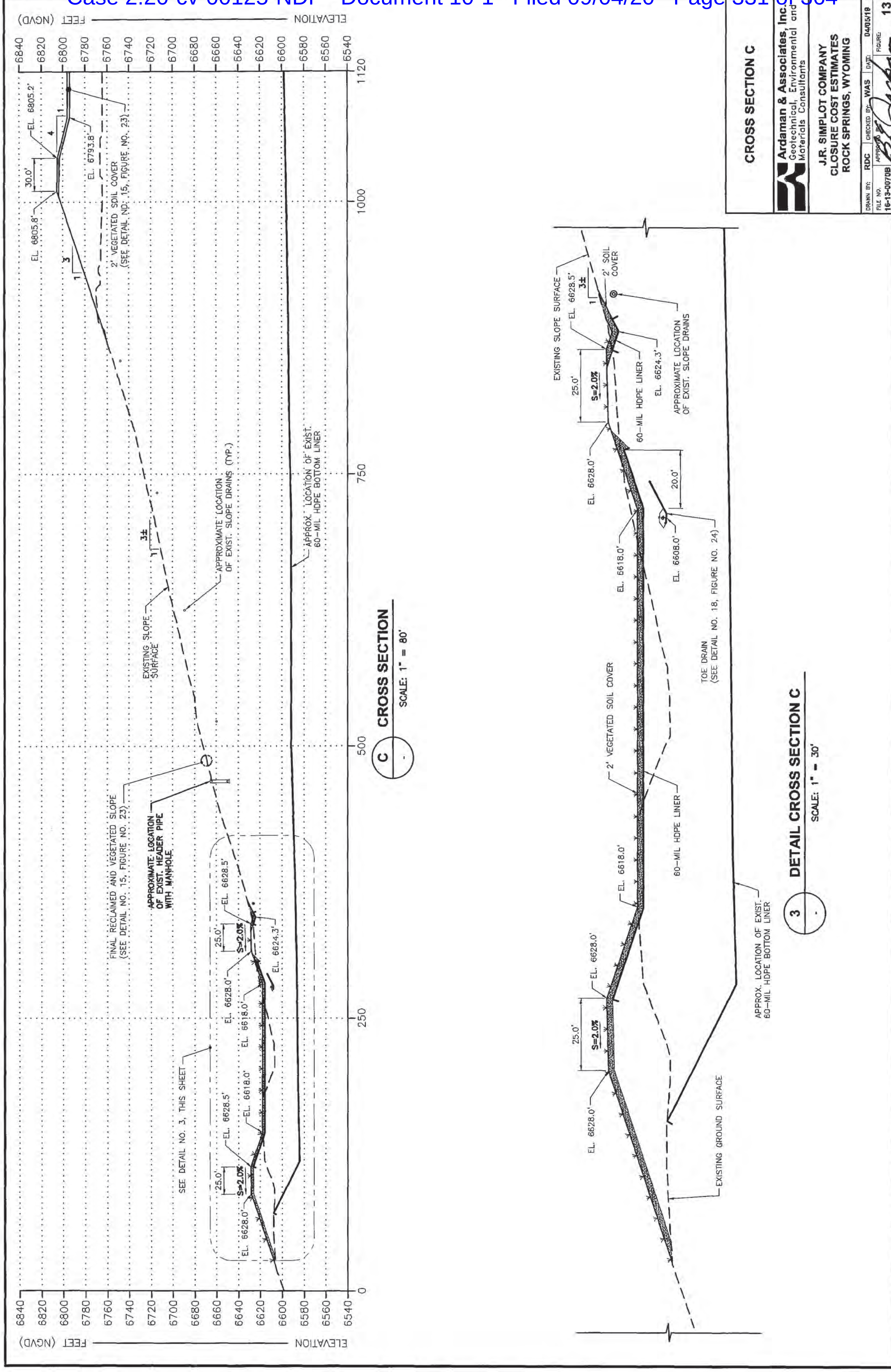
CROSS SECTION B

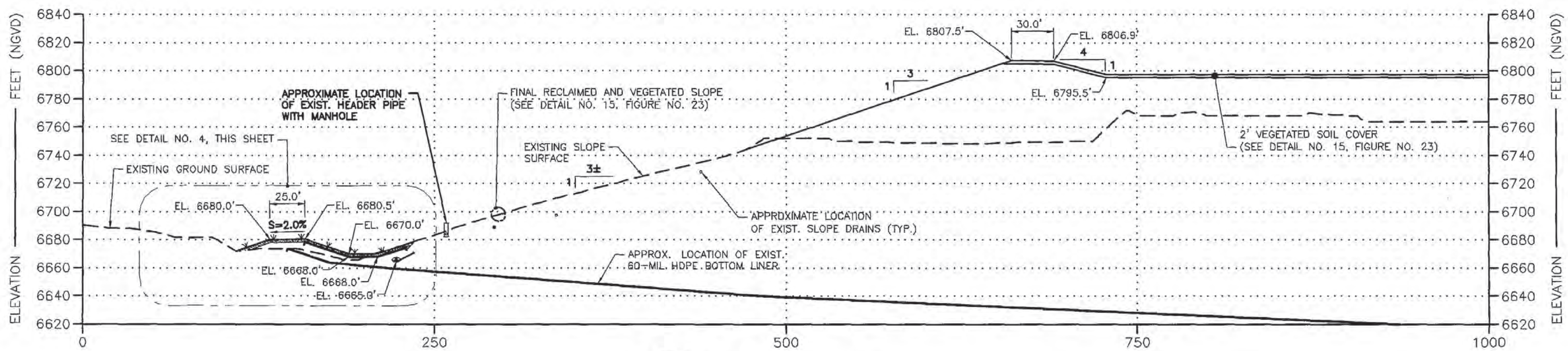
Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING

DRAWN BY: RDC	CHECKED BY: WAS	DATE: 04/05/19
FILE NO. 16-13-0070B	APPROVED BY:	FIGURE: 12

T:\Corporate\16\16-13-0070B\SIMPLOT ROCK SPRINGS — CLOSURE COST ESTIMATE_CURRENT SHEET SET\11 CROSS SECTION A.dwg 2019/04/05 12:12 PM, Clemons, Richard


CROSS SECTION C
Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants
J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING
DRAWN BY: RDC
CHECKED BY: WAS
DATE: 04/05/18
FILE NO. 16-13-0070B
FIGURE: 13
C CROSS SECTION
SCALE: 1" = 80'
3 DETAIL CROSS SECTION C
SCALE: 1" = 30'
ELEVATION FEET (NGVD)
EXISTING SLOPE SURFACE
APPROXIMATE LOCATION OF EXIST. SLOPE DRAINS (TYP.)
APPROX. LOCATION OF EXIST. 60-MIL HDPE BOTTOM LINER
2' VEGETATED SOIL COVER (SEE DETAIL NO. 15, FIGURE NO. 23)
FINAL RECLAIMED AND VEGETATED SLOPE (SEE DETAIL NO. 15, FIGURE NO. 23)
APPROXIMATE LOCATION OF EXIST. HEADER PIPE WITH MANHOLE
SEE DETAIL NO. 3, THIS SHEET
60-MIL HDPE LINER
TOE DRAIN (SEE DETAIL NO. 18, FIGURE NO. 24)
EXISTING GROUND SURFACE
2' SOIL COVER
APPROXIMATE LOCATION OF EXIST. SLOPE DRAINS
S=2.0%



D
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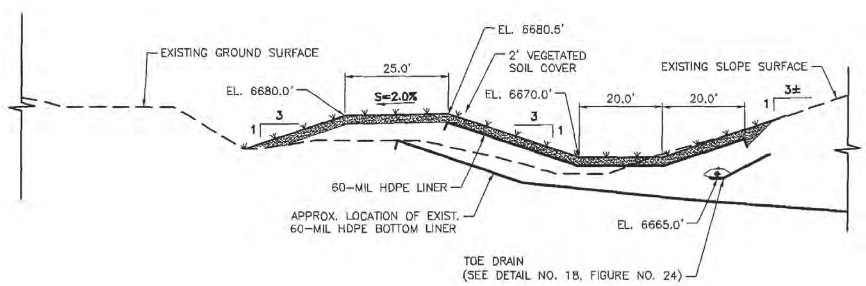
CROSS SECTION
SCALE: 1" = 80'



4
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DETAIL CROSS SECTION D
SCALE: 1" = 30'

CROSS SECTION D

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING

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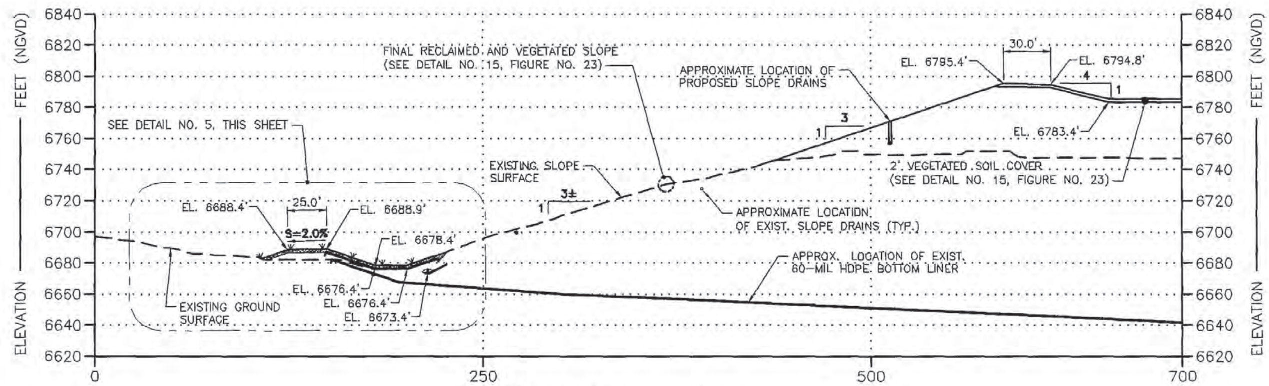
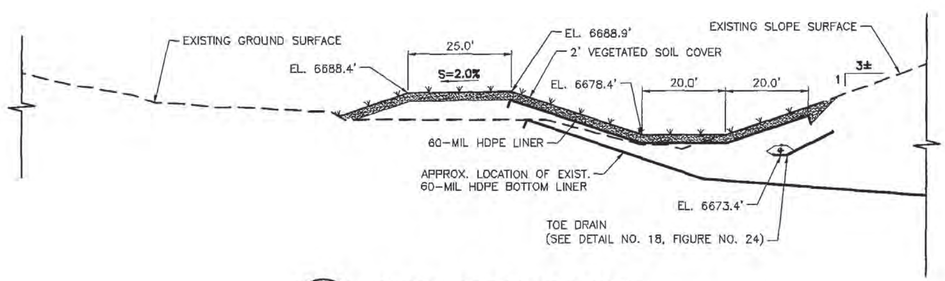
FILE NO. 16-13-0070B	APPROVED BY:	FIGURE: 14

T:\Corporate\16\16-13-0070B\SIMPLOT ROCK SPRINGS - CLOSURE COST ESTIMATE__CURRENT SHEET SET\11 CROSS SECTION A.dwg 2019/04/05 12:12 PM, Clemons, Richard



E CROSS SECTION
SCALE: 1" = 80'



5 DETAIL CROSS SECTION E
SCALE: 1" = 30'

CROSS SECTION E

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING

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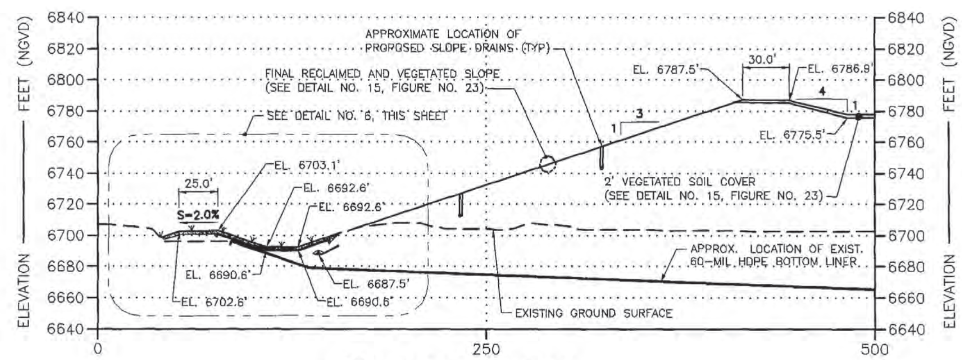
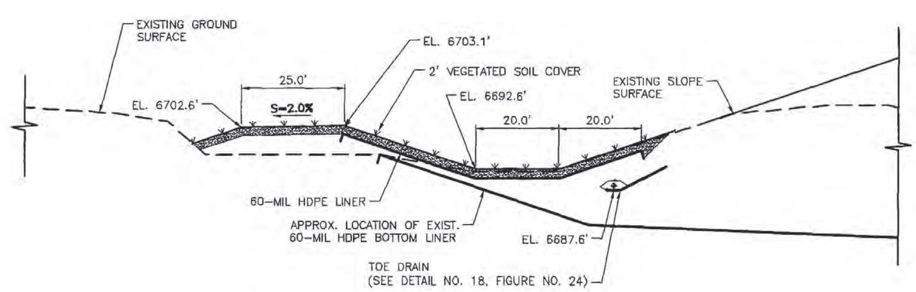
FILE NO. 16-13-0070B	APPROVED BY:	FIGURE: 15

T:\Corporate\16\16-13-0070B\SIMPLOT ROCK SPRINGS – CLOSURE COST ESTIMATE_CURRENT SHEET SET\11 CROSS SECTION A.dwg 2019/04/05 12:12 PM, Clemons, Richard



F CROSS SECTION

SCALE: 1" = 80'



6 DETAIL CROSS SECTION F

SCALE: 1" = 30'

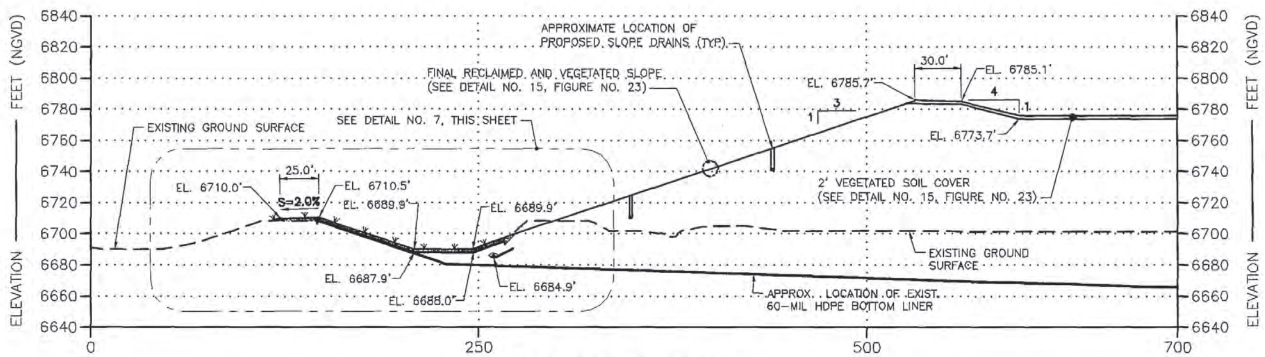
CROSS SECTION F

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING

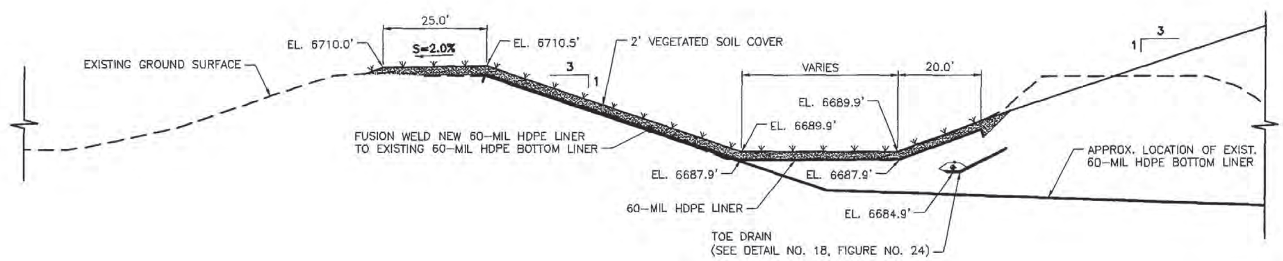
DRAWN BY: RDC	CHECKED BY: WPS	DATE: 04/05/19
FILE NO. 16-13-0070B	APPROVED BY:	FIGURE: 16

T:\Corporate\16\16-13-0070B\SIMPLOT ROCK SPRINGS – CLOSURE COST ESTIMATE__CURRENT SHEET SET\11 CROSS SECTION A.dwg 2019/04/05 12:12 PM, Clemons, Richard



G CROSS SECTION

SCALE: 1" = 80'



7 DETAIL CROSS SECTION G

SCALE: 1" = 30'

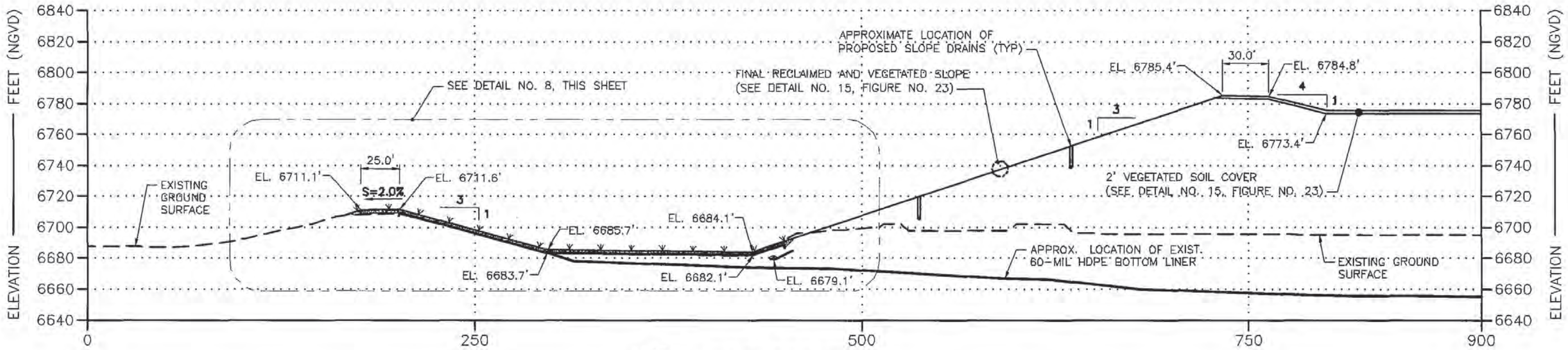
CROSS SECTION G

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING

DRAWN BY: RDC	CHECKED BY: WAS	DATE: 04/05/19
FILE NO. 16-13-0070B	APPROVED BY:	FIGURE: 17

T:\Corporate\16\16-13-0070B\SIMPLOT ROCK SPRINGS – CLOSURE COST ESTIMATE_CURRENT SHEET SET\11 CROSS SECTION A.dwg 2019/04/05 12:12 PM, Clemons, Richard



H
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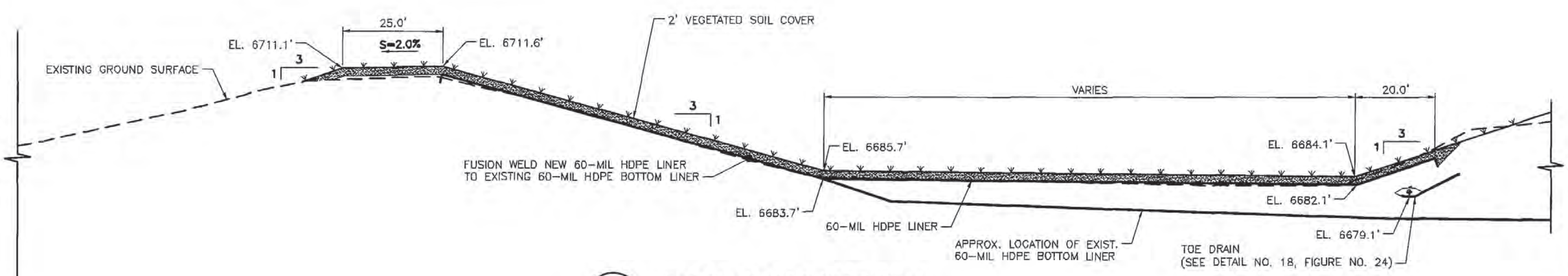
CROSS SECTION
SCALE: 1" = 80'



8
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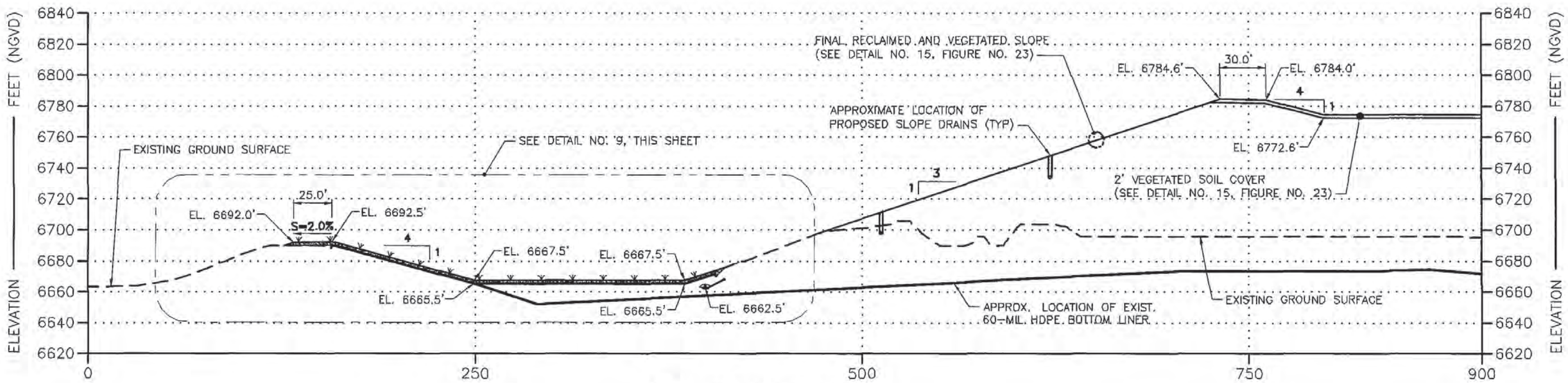
DETAIL CROSS SECTION H
SCALE: 1" = 30'

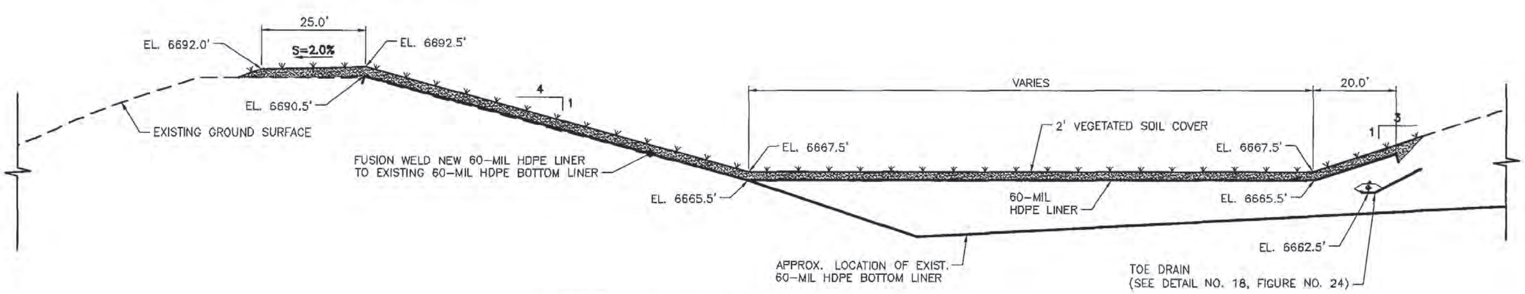
CROSS SECTION H			
Ardaman & Associates, Inc. Geotechnical, Environmental and Materials Consultants			
J.R. SIMPLOT COMPANY CLOSURE COST ESTIMATES ROCK SPRINGS, WYOMING			
DRAWN BY: RDC	CHECKED BY: WAS	DATE: 04/05/19	
FILE NO. 16-13-0070B	APPROVED BY: [signature]	FIGURE: 18	

T:\Corporate\16\16-13-0070B\SIMPLOT ROCK SPRINGS – CLOSURE COST ESTIMATE___CURRENT SHEET SET\11 CROSS SECTION A.dwg 2019/04/05 12:12 PM, Clemons, Richard



I CROSS SECTION

SCALE: 1" = 80'



9 DETAIL CROSS SECTION I

SCALE: 1" = 30'

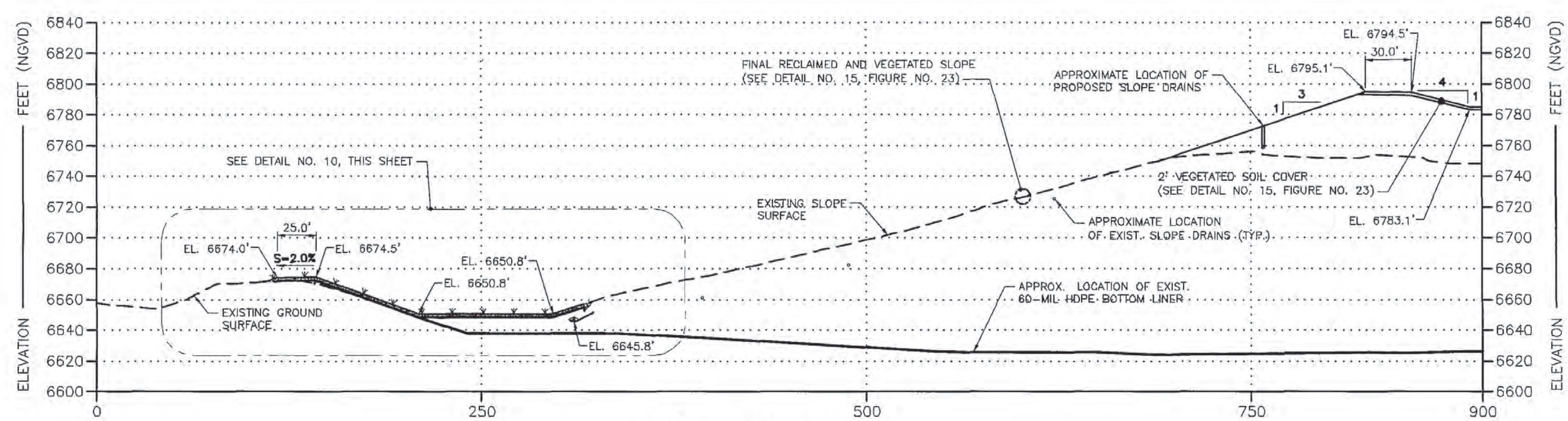
CROSS SECTION I

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING

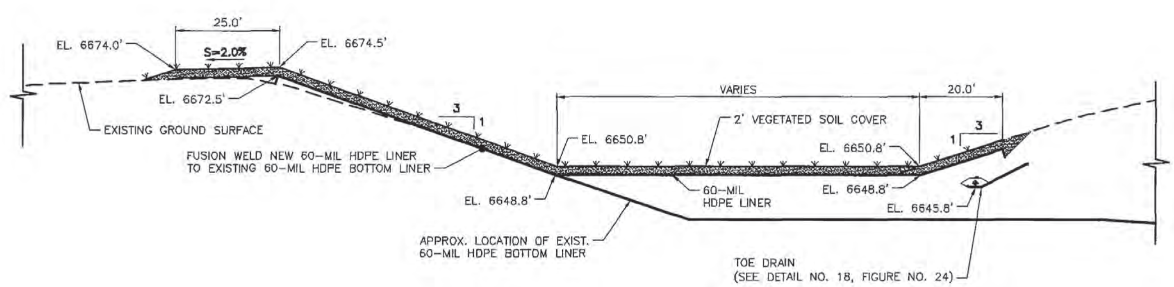
DRAWN BY: RDC	CHECKED BY: WAS	DATE: 04/05/19
FILE NO. 16-13-0070B	APPROVED BY:	FIGURE: 19

T:\Corporate\16\16-13-0070B\SIMPLOT ROCK SPRINGS – CLOSURE COST ESTIMATE__CURRENT SHEET SET\11 CROSS SECTION A.dwg 2019/04/05 12:12 PM, Clemons, Richard



J CROSS SECTION

SCALE: 1" = 80'



10 DETAIL CROSS SECTION J

SCALE: 1" = 30'

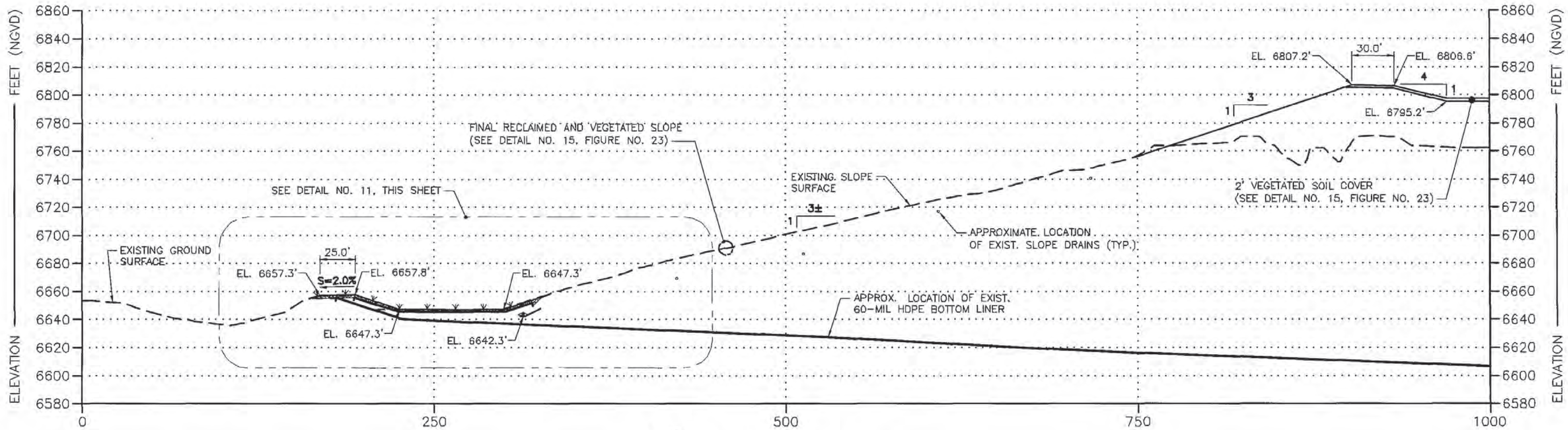
CROSS SECTION J

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING

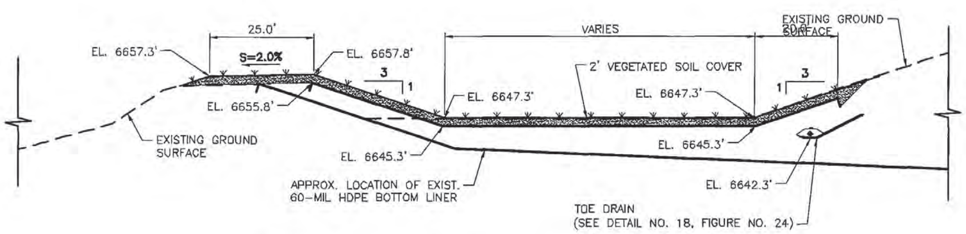
DRAWN BY: RDC	CHECKED BY: WAS	DATE: 04/05/19
FILE NO. 16-13-0070B	APPROVED BY:	FIGURE: 20

T:\Corporate\16\16-13-0070B\SIMPLOT ROCK SPRINGS - CLOSURE COST ESTIMATE__CURRENT SHEET SET\11 CROSS SECTION A.dwg 2019/04/05 12:13 PM, Clemons, Richard



K **CROSS SECTION**

SCALE: 1" = 80'

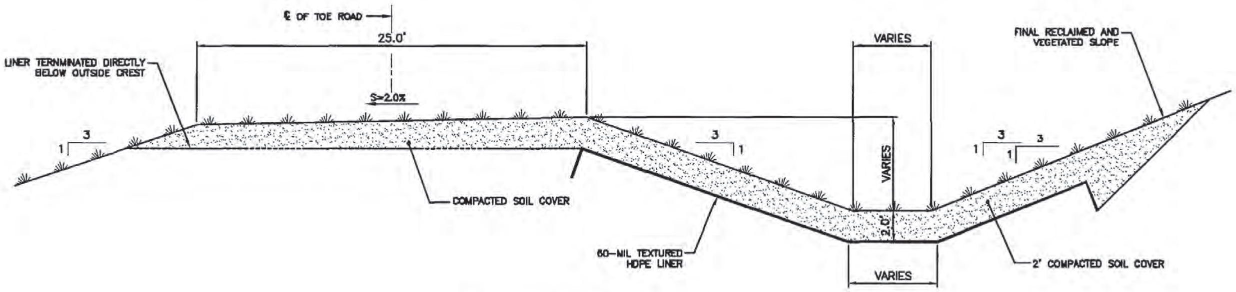


11 **DETAIL CROSS SECTION K**

SCALE: 1" = 30'

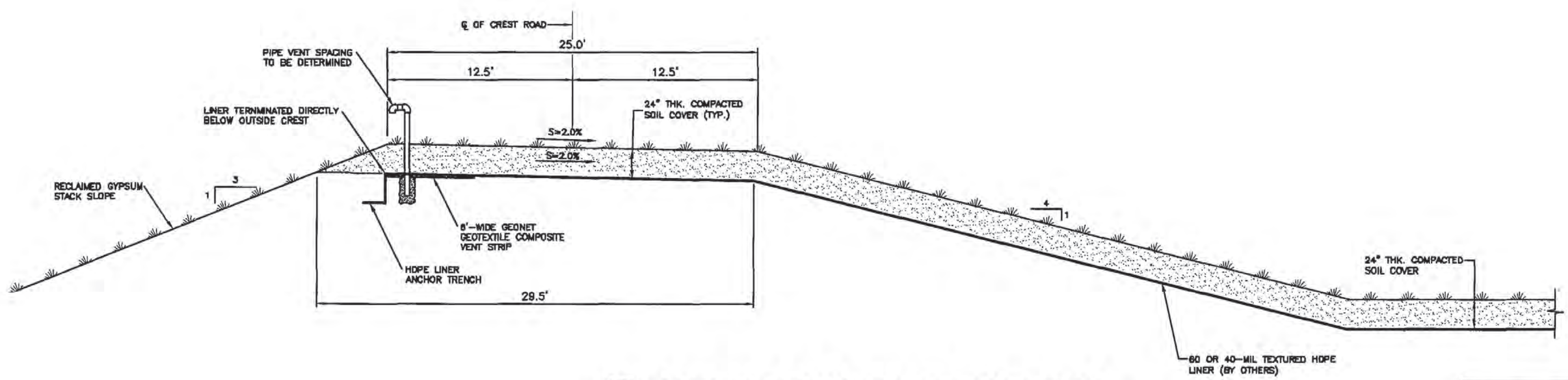
CROSS SECTION K	
Ardaman & Associates, Inc. Geotechnical, Environmental and Materials Consultants	
J.R. SIMPLOT COMPANY CLOSURE COST ESTIMATES ROCK SPRINGS, WYOMING	
DRAWN BY: RDC	CHECKED BY: WAS
DATE: 04/05/19	
FILE NO. 16-13-0070B	APPROVED BY:
FIGURE: 21	

T:\Corporate\16\16-13-0070B\SIMPLOT ROCK SPRINGS – CLOSURE COST ESTIMATE__CURRENT SHEET SET\11 CROSS SECTION A.dwg 2019/04/05 12:13 PM, Clemons, Richard



12 - TOE ROAD DETAIL

NOT TO SCALE



13 - LINED TOP CAP AND CREST ROAD DETAILS

NOT TO SCALE

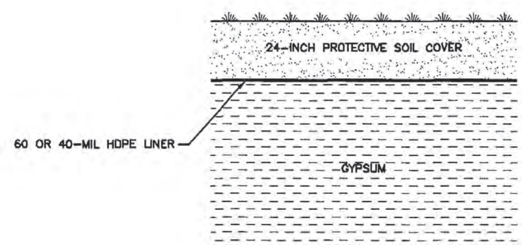
MID-SLOPE BENCH & TOE ROAD DETAILS

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

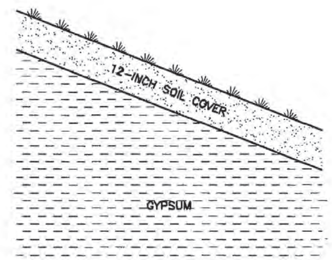
J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING

DRAWN BY: RDC	CHECKED BY: WAS	DATE: 04/05/19
FILE NO. 16-13-0070B	APPROVED BY:	FIGURE: 22

T:\Corporate\16\16-13-0070B\SIMPLOT ROCK SPRINGS - CLOSURE COST ESTIMATE__CURRENT SHEET SET\22 MID-SLOPE BENCH & TOE ROAD DETAILS.dwg 4/05/2019 12:13:09 PM, richard.clemons



14 TOP LINER AND COVER DETAIL
NOT TO SCALE



15 SIDE SLOPE COVER DETAIL
NOT TO SCALE

TOP LINER & SIDE SLOPE COVER DETAILS

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING

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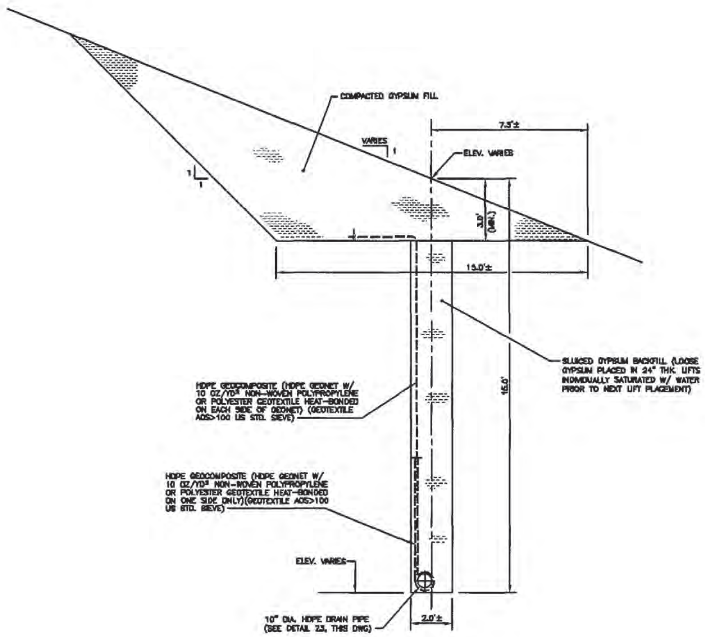
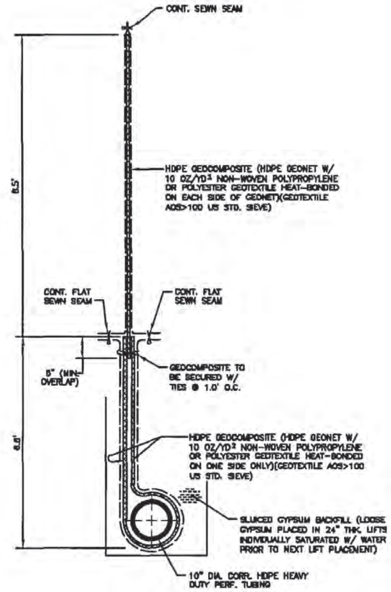
FILE NO. 16-13-0070B	APPROVED BY:	FIGURE: 23

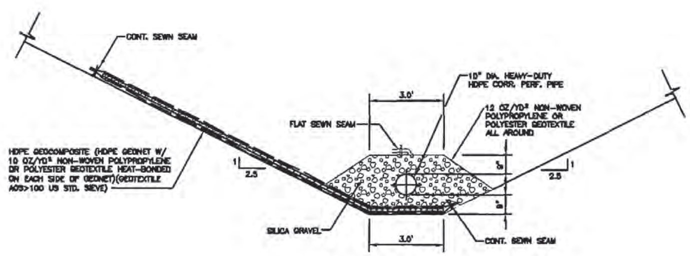
T:\Corporate\16\16-13-0070B\SIMPLOT ROCK SPRINGS - CLOSURE COST ESTIMATE__CURRENT SHEET SET\23 TOP LINER & SIDE SLOPE COVER DETAILS.dwg 4/05/2019 12:13:13 PM, richard.clemons



16 SLOPE DRAIN DETAIL
SCALE: 1"=3'



17 DRAIN DETAIL
NOT TO SCALE



18 TOE DRAIN DETAIL
SCALE: 1"=5'

SEEPAGE COLLECTION
SLOPE & TOE DRAIN DETAILS

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

J.R. SIMPLOT COMPANY
CLOSURE COST ESTIMATES
ROCK SPRINGS, WYOMING

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T:\Corporate\16\16-13-0070B\SIMPLOT ROCK SPRINGS - CLOSURE COST ESTIMATE__CURRENT SHEET SET\24 SEEPAGE COLLECTION SLOPE & TOE DRAIN DETAILS.dwg 4/05/2019 12:13:19 PM, richard.clemons

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Appendix 9

Additional Definitions of Terms Used in Appendices

APPENDIX 9:
ADDITIONAL DEFINITIONS OF TERMS USED IN APPENDICES

For Appendices 1-8, any capitalized terms not otherwise defined in the individual appendices shall have the meanings set forth in the Consent Decree or as provided in this Appendix 9.

"Active" means a Phosphogypsum Stack/System that currently receives Phosphogypsum and/or Process Wastewater from an operating phosphoric acid production facility.

"Auxiliary Holding Pond (AHP)"[1] means a lined storage pond, designated by the operator and approved by the state and/or EPA, typically used to hold untreated Process Wastewater. AHPs are intended to increase system storage above that otherwise provided by the Return Pond(s) and are typically located within the footprint of a Phosphogypsum Stack System.

"Background" means the constituents or parameters and the concentrations or measurements that describe water quality and water quality variability prior to a subsurface discharge, as defined in Chapter 8, Quality Standards for Wyoming Groundwaters, Section 2(b) of the W.A.C.

"Component" includes any AHP(s), lime treatment solids ponds, Dikes, Toe drainage swales, Process Wastewater and Leachate channels or ditches, other Process Wastewater collection or conveyance systems associated with a Phosphogypsum Stack, cooling ponds, or Return Ponds.

"Dike" means a barrier to the flow of Phosphogypsum and Process Wastewater which is constructed of naturally occurring soil (Earthen Dike) or of Phosphogypsum (Gypsum Dike) and which is a Component of a Phosphogypsum Stack System.

"Drain" means a material more pervious than the surrounding fill which allows seepage water to drain freely while preventing Piping or internal erosion of the fill material.

"Earthen Dike" means a barrier to the flow of Phosphogypsum and Process Wastewater which is constructed of naturally occurring soil and which is a Component of a Phosphogypsum Stack System.

"Emergency Diversion Impoundment (EDI)" means a storage area, typically located outside the footprint of a Phosphogypsum Stack System, designated in the Facility's site-specific water management plan to be used on a temporary basis when necessary to avoid an unpermitted Surface Water discharge resulting from Dike overtopping or other imminent and substantial endangerment as identified in Appendix 1.D.

"Evaporation Pond" means impounded areas that provide for the evaporation of Process Wastewater and Leachate or treated Process Wastewater and Leachate.

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[1] The current "auxiliary holding pond" at the Rock Springs contains fresh water; it does not contain any Process Water.

"Final Cover" means the materials used to cover the top and sides of any Component of the Phosphogypsum Stack System upon closure in accordance with Appendix 1.C.

"Freeboard" means the distance between the liquid level in an impoundment and the liquid level which would result in the release of stored liquid from the impoundment.

"Geomembrane" means a low-permeability synthetic membrane used as an integral part of a Phosphogypsum Stack System designed to limit the movement of liquid or gas in the Phosphogypsum Stack System.

"Groundwater" means subsurface water that fills available openings in rock or soil materials such that they may be considered water saturated under hydrostatic pressure, as defined in Chapter 8, Quality Standards for Wyoming Groundwaters, Section 2(f) of the W.A.C.

"Groundwater Table" means the upper surface of a zone of saturation, where the body of Groundwater is not confined by an overlying impermeable zone.

"Gypsum Dike" means the outermost Dike constructed from Phosphogypsum within the perimeter formed by a Starter Dike for the purpose of raising a Phosphogypsum Stack and impounding Phosphogypsum and/or Process Wastewater. This term specifically excludes any Dike inboard of a rim ditch, any partitions separating Phosphogypsum Stack compartments, or any temporary windrows placed on the Gypsum Dike.

"Inactive" means a Phosphogypsum Stack, Phosphogypsum Stack System or Component thereof that has not undergone Stack Closure and is no longer receiving Phosphogypsum and/or Process Wastewater.

"Initial Closure Plan" means the preliminary closure plan prepared in accordance with Appendix 1.C and incorporated in Appendix 8 that includes Phosphogypsum Stack System Closure design elements needed to generate a Cost Estimate in accordance with Appendix 2.

"Lateral Expansion" means the horizontal expansion of Phosphogypsum or Process Wastewater storage capacity beyond the permitted capacity (where applicable) or design dimensions (i.e., footprint) of the Phosphogypsum Stack, or Return Ponds, and perimeter drainage conveyances at an existing Facility. Any Phosphogypsum Stack, Return Pond(s), or perimeter drainage conveyance which is constructed within 2000 feet of an existing Phosphogypsum Stack System, measured from the edge of the expansion nearest to the edge of the footprint of the existing Phosphogypsum Stack System, is considered a Lateral Expansion. A fully enclosed building, container, tank or Emergency Diversion Impoundment does not constitute a Lateral Expansion. A vertical expansion against a slope, where there is also a horizontal expansion, shall not be considered a lateral expansion as long as such vertical and horizontal expansion is part of the approved design and construction plan.

"Liner" means a continuous layer of low permeability natural or synthetic materials which controls the downward and lateral escape of waste constituents or Leachate from a Phosphogypsum Stack System.

"Log" means a record maintained by the Facility that contains a schedule of inspections of Phosphogypsum Stack System or Component(s) thereof, the findings of such inspections, and any remedial measures taken in response to such findings.

"Long-Term Care" shall have the same meaning as set forth in Appendix 2 and refers to the period following Stack Closure during which long-term care activities are undertaken in accordance with the requirements in Appendix 1.C.

"Maximum Design Level" means the engineer-certified maximum water elevation that an impoundment is designed to contain, as determined using generally accepted good engineering practices with appropriate factors of safety.

"New Perimeter Dike" means a Perimeter Dike that is completed after the Effective Date.

"Perimeter Dike" means the outermost Earthen Dike surrounding a Phosphogypsum Stack System that has not been closed or any other Earthen Dike, the failure of which could cause a release of Process Wastewater outside the Phosphogypsum Stack System. In the case of a vertical expansion, the HDPE lined outermost Dike shall also be considered a Perimeter Dike, even if it is constructed with Phosphogypsum, if its failure could cause a release of Process Wastewater outside the Phosphogypsum Stack System.

"Permanent Phosphogypsum Stack System Closure Plan" or "Permanent Closure Plan" means the plan for Stack Closure and Long-Term Care submitted at or prior to closure and prepared in accordance with the requirements of Appendix 1.C.

"Phosphogypsum Stack System Closure[2]" means the cessation of operation of a Phosphogypsum Stack, Phosphogypsum Stack System, or Component thereof and the acts of securing and closing such a system, in accordance with the Permanent Closure Plan so that it will pose no significant threat to human health or the environment. This includes Stack Closure, Long-Term Care and the water treatment activities associated with Stack Closure and Long-Term Care.

"Piping" means progressive erosion of soil or solid material within the dam or Dike, starting downstream and working upstream, creating a tunnel into the dam or Dike. Piping occurs when the velocity of the flow of seepage water is sufficient for the water to transport material from the embankment.

"Return Pond" means impounded areas within the Phosphogypsum Stack System, excluding settling compartments atop the Phosphogypsum Stack, that provide capacity for the cooling,

[2] The Permanent Phosphogypsum Stack Closure period begins on Day 1 of Stack Closure and runs through the Long-Term Care period, generally a minimum of 50 years.

storage and reuse or recirculation of phosphoric acid Process Wastewater, Phosphogypsum Stack Leachate or runoff from the Phosphogypsum Stack.

"Soil Liner" means a Liner constructed from naturally occurring earthen material. This definition expressly excludes any Liner constructed of synthetic material or Phosphogypsum.

"Stack Closure" shall have the same meaning as set forth in Appendix 2 and refers to when a Phosphogypsum Stack, Phosphogypsum Stack System, Component thereof, or an EDI ceases to accept Phosphogypsum, Process Wastewater, Phosphogypsum System Leachate or collection waters. In addition, actions are undertaken to secure and close the Phosphogypsum Stack, Phosphogypsum Stack System, Component thereof, or EDI in Phosphogypsum Stack System closing, Long-Term Care (e.g., monitoring and maintenance) and water treatment activities associated with Phosphogypsum Stack System closing and Long-Term Care activities.

"Starter Dike" means the initial Dike constructed at the base of a Phosphogypsum Stack to begin the process of storing Phosphogypsum.

"Surface Waters of the State" or "Surface Water" means all perennial and intermittent defined drainages, lakes, reservoirs and wetlands which are not man-made retention ponds used for the treatment of municipal, agricultural or industrial waste; and all other bodies of surface water, either public or private which are wholly or partially within the boundaries of the state. Nothing in this definition is intended to expand the scope of the Environmental Quality Act, as limited in W.S. 35-11-11004, as defined in Chapter 1, Wyoming Surface Water Quality Standards, Section 2(b)(l) of the W.A.C.

"Temporary Deactivation" means a Phosphogypsum Stack System that will cease or has ceased to accept deposits of Phosphogypsum and/or Process Wastewater on a temporary basis and for which a request has been made in writing to, and approved by, the State of Wyoming and/or the EPA in accordance with the requirements in Appendix 1.C.

"Third-Party Engineer" means an engineer who is not an employee of any entity that owns or operates a phosphate mine or Facility.

"Toe" means the junction between the face of the Dike and the adjacent terrain.

"Toe Drain" is a wedge-shaped Drain supporting the downstream Toe of the dam.

"Wave Height" means the average height of the waves that are used for design purposes as a function of sustained wind speed, effective fetch length[3], and wind duration.

"Wave Run-up" means the difference in vertical height between the maximum elevation attained by wave run up or uprush on a slope and the still water elevation at the inboard Toe of the slope.

[3] Maximum fetch refers to the maximum unobstructed distance across a free liquid surface over which wind can act (typically the diagonal measurement across an impoundment).

"Wind Surge" means the vertical rise in base water-surface elevation, exclusive of the Wave Height, above the still water elevation, caused by wind-induced stresses and mounding of the water surface in the leeward direction.