Appendix 2A

CERCLA Investigations and Response for Smoky Canyon Mine and South Fork Sage Creek

SMOKY CANYON MINE
CERCLA INVESTIGATIONS AND RESPONSE

Smoky Canyon Mine
CERCLA Investigations and Response

Introduction

The goal of this appendix is to expand on the text in the EIS and demonstrate that with the regulatory status of the CERCLA action, and the actions taken by the agencies and implemented by Simplot, the segment of lower Sage Creek, currently exceeding the standard for selenium, would not be exacerbated by impacts from the proposed Panels F and G mine expansion. Response actions initiated in 2006, intended to curtail the release of selenium from the Pole Canyon portion of the site, are anticipated to substantially reduce the presence of contaminants prior to the predicted peak impacts from the proposed Panels F and G mine expansion.

Sage Creek currently has elevated selenium concentrations derived from the existing Smoky Canyon Mine. Sage Creek selenium concentration currently exceeds the chronic water quality standard for selenium in surface water, at least part of the year.

The agency Preferred Alternative for the mine expansion includes Alternative D; a cover system designed to reduce infiltration into the overburden thereby reducing the amount of water available to leach selenium and enter the ground water system. In addition, the cover system also increases the amount of time until which water quality impacts are expected to reach their peak concentrations.

Groundwater impact analyses conducted for the EIS indicate that the agency Preferred Alternative is expected to impact water quality at South Fork Sage Creek Spring, which flows into the main stem of lower Sage Creek in the southern part of Sage Valley. The peak selenium concentration at the spring resulting from the mitigated mine operations is predicted to be approximately 0.0025 mg/L, or about half the current selenium chronic water quality standard (0.005 mg/L). The peak concentration is predicted to occur about 120 years after the percolation from the overburden enters the groundwater. The model used to predict selenium concentrations downstream of South Fork Sage Creek in Sage Creek indicates the proposed mitigated mine operations would not exacerbate the current selenium concentration situation in lower Sage Creek. When the estimated effectiveness of the Pole Canyon ODA removal action is included in these calculations, the selenium concentration in lower Sage Creek is predicted to be below the selenium surface water standard.

Regulatory Status

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) was enacted by Congress in 1980 and substantially amended in 1986 in the Superfund Amendments and Reauthorization Act (SARA). The Act was enacted to respond to pollution and the threats posed to human heath and the environment resulting from the release, or imminent threat of a release, of Clean Water Act hazardous substances. CERCLA provides that the parties responsible for the pollution pay the costs to investigate and remediate contaminated sites, and it provides that an orderly investigation is conducted under the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). U.S. Department of Agriculture delegations to administer CERCLA were provided by the President in Executive Order 12580, in response to hazardous substance releases affecting National Forest System lands.

The Smoky Canyon Mine is located on National Forest System lands leased to Simplot by the Department of Interior to mine phosphate. The Forest Service completed a Site Investigation and determined that selenium and other hazardous substances are being released from the site into the environment. The Site Investigation found that rock mined as overburden provided the sources for releases. Most of these facilities were constructed prior to the discovery of selenium releases. Since discovery, mining companies and the regulatory oversight agencies have worked to understand release mechanisms and to develop best management practices to minimize releases.

In 2003, Simplot entered into an Administrative Order on Consent (AOC) to conduct a Site Investigation (SI) and Engineering Evaluation/Cost Analysis (EE/CA) with the U.S. Forest Service, the Idaho Department of Environmental Quality (IDEQ), and the U.S. Environmental Protection Agency (EPA). The AOC and it's accompanying Scope of Work (SOW), obligate Simplot to investigate the release or the threat of a release of hazardous substances, listed at 40 CFR 300, from their phosphate mining and milling operations at the Smoky Canyon Mine (Site). In the AOC, Simplot agreed to develop a range of response action alternatives in an EE/CA as remediation to the releases or threatened releases identified in the SI. The Forest Service as lead agency then selects alternatives for implementation based on implementability, feasibility, and cost.

The AOC divides the Site into two areas of study, Area A and Area B. Area A consists of Panels A, D, E, and Pole Canyon or the inactive portions of the mine located on National Forest system land under lease and special-use permit to Simplot. Area B is the tailings ponds area, which is located on Simplot-owned property east of the existing mine.

In accordance with the AOC, a Site Investigation (SI) conducted in 2003 and 2004, and finalized in a July 2005 report, demonstrates the release of Clean Water Act (CWA) hazardous substances from the Smoky Canyon Mine. The SI Report identifies existing environmental conditions that represent releases from the Site presenting unacceptable risks to ecological and human receptors. Data gathered during the investigations shows where and when exceedances of applicable environmental standards were measured at the Site. Alternatives to remedy conditions at the Site, presented as removal actions, were developed by Simplot in the EE/CA. The alternatives were then evaluated by the Forest Service for implementability, effectiveness, and cost.

On May 28, 2006 and again on June 8, 2006, the USFS published notices of availability for public comment on the Smoky Canyon Mine EE/CA.

As indicated in the EE/CA, a primary area of concern at the Site is the 26 million cubic yard Pole Canyon Overburden Disposal Area (ODA). The Forest Service preferred removal response action alternatives identified for the ODA include diversion of Pole Canyon Creek around the ODA, an infiltration gallery, and installation of run-on control ditches to manage water currently infiltrating through the ODA and discharging to surface and groundwater. The Forest Service accepted the Simplot EE/CA as a final EE/CA only for the purpose of evaluating and selecting non-time critical removal response actions related to the diversion of water from the Pole Canyon ODA (Forest Service response to public comments, October 2, 2006). Because the response actions selected by the Forest Service isolate waste rock stored in the ODA from Pole Canyon Creek, the load of selenium transported from the embankment into the creek, into the down gradient alluvial aquifer, and underlying Wells formation, is predicted to drop substantially. A reduction in the chemical load dissolved in water infiltrating to the Wells formation aquifer beneath the ODA is predicted to result from this set of actions.

Effective October 18, 2006, Simplot entered into a settlement agreement with the Forest Service, EPA, and IDEQ under which Simplot is obligated to implement the removal response actions selected by the Forest Service. Those actions serve to remediate the transportation of selenium from the Pole Canyon ODA via Pole Canyon Creek and runoff from the surrounding landscape, as described in the Action Memorandum. Simplot has posted a $2.9 million bond to guarantee their performance of the work according to approved plans.

Hydrogeological Conceptual Model for Pole Canyon ODA

The SI found that the Pole Canyon ODA contributes a substantial selenium load to Sage Creek. A portion of the load can be seasonally contributed through surface water and a larger portion is contributed through the groundwater to Hoopes Spring, which discharges into Sage Creek. The SI data found Sage Creek water to exceed the State and CWA standard of 0.005 mg/L much of the year.

The Pole Canyon ODA is distinct from other Smoky Canyon Mine overburden fills because of its canyon backfill setting and the presence of an underlying shallow alluvial groundwater system associated with Pole Canyon Creek and extending into Sage Valley. The creek enters the west end of the ODA, flows east through the base of the overburden along the original creek channel through waste rock, and discharges from the east end, or downstream toe of the ODA. Pole Canyon Creek leaves the toe of the ODA channel, and from there it flows downstream into Sage Valley. Water discharging from the downstream end of the channel has concentrations of selenium up to 1.5 mg/L.

Along the flow path from the ODA into Sage Valley, Pole Canyon Creek loses flow as it infiltrates to both the underlying alluvial groundwater flow system and the underlying bedrock. Surface water monitoring during the SI period indicates that Pole Canyon Creek loses all flow a short distance downstream from the ODA during low flow seasons (summer, fall, winter). During spring high flows, this same monitoring indicated that, with the exception of spring 2006, all flow in Pole Canyon Creek is lost to its channel or from irrigation diversions before its confluence with Sage Creek.

Pole Canyon Creek water percolating into the Wells formation migrates vertically downward through approximately 200 feet of unsaturated bedrock. Wells formation groundwater below Pole Canyon flows a short distance east from the ODA to the West Sage Valley Branch Fault, which acts as a boundary preventing further eastward flow. Upon reaching the fault, the SI report states that groundwater flows south along the fractured fault zone to eventually discharge approximately two miles south at Hoopes Spring. Selenium discharged with groundwater at Hoopes Spring flows to lower Sage Creek via surface water flow. Selenium concentrations at Hoopes Spring have been steadily increased since about 1989 and now range up to 0.019 mg/L, several times the standard of 0.005 mg/L.

Selenium concentrations in lower Sage Creek vary seasonally. Base flow in lower Sage Creek is mostly supported by flow from Hoopes Spring and South Fork Sage Creek Spring, which both enter Sage Creek in the southern part of Sage Valley. Given the relatively uniform flow and elevated selenium concentrations in Hoopes Spring, even with the dilution provided by clean flow from South Fork Sage Creek, exceedances of the CWA selenium standard persist downstream of Hoopes Spring during low flow periods. During spring runoff, additional clean runoff water moving through the Sage Creek and South Fork Sage Creek drainages produces the highest amounts of dilution for the Hoopes Spring water and typically the lowest seasonal selenium concentrations, typically in compliance with the water quality standard. Where past

monitoring indicates selenium concentrations complied with CWA standards in Lower Sage Creek during high flows, in 2006 selenium concentrations over the CWA standards persisted downstream into Crow Creek during peak runoff flow. This was due to surface water flow from Pole Canyon Creek contributing selenium load directly to lower Sage Creek. This had not occurred in the previous 10 years of sampling.

According to the SI Report approximately half of the selenium load leaving the Pole Canyon ODA reports to the underlying Wells formation annually (approximately 300 lbs. per year). The estimated selenium mass balance was developed with two years of data from SI monitoring well GW-16, where relatively consistent water levels and selenium concentrations are measured in the Wells formation immediately downstream of the Pole Canyon ODA and down-gradient discharges were measured from Hoopes Spring

Forest Service Preferred Alternative Smoky Canyon EE/CA

Section 5.2.2.3 of the Smoky Canyon Mine EE/CA summarizes Alternative 3 for the Pole Canyon ODA, the Forest Service preferred alternative. Under this alternative, Pole Canyon Creek flow into the ODA would be eliminated or significantly reduced by diverting creek flow around the ODA and by infiltrating flow into the Wells formation upstream of the ODA. Approved plans indicate the diversion pipe would divert the flow of Pole Canyon Creek far enough upstream of the ODA to allow gravity flow over the ODA. Overflow from the diversion during runoff and storm events would flow downstream and into a settling and infiltration basin excavated upstream of the ODA. Water captured in the basin would infiltrate into the Wells formation unimpacted by mining activities. As percolation carries infiltrating water deeper into the Wells formation the EE/CA predicts it would pass through bedrock under the ODA without contacting overburden materials. Surface water run-on controls included with the set of alternatives diverts snowmelt and stormwater away from the ODA in a series of ditches in an effort to isolate this component of flow. Plans approved for implementation provide that the infiltration basin and diversion would be managed to provide unimpacted water to support downstream beneficial water uses in Sage Valley and further downstream.

The agencies have identified as a priority the need for response actions to reduce selenium transport from the Pole Canyon ODA to Sage Valley and to Hoopes Spring. Selenium concentrations down gradient of the Pole Canyon ODA are above applicable standards. Hoopes Spring, the headwaters of a fish-bearing stream, exceeds the chronic cold water biota standard for selenium as documented increases are approaching the acute criteria.

The EE/CA proposed several alternative packages to control selenium releases from the Pole Canyon ODA. The primary environmental issues to be addressed are the leaching of selenium from the flow of Pole Canyon Creek through the ODA and the infiltration of water through the ODA from direct precipitation and run-on.

1. **No Action:** No action would be taken.

2. **Treatment:** Pole Canyon Creek would continue to flow through the ODA. The surface of the ODA would be treated with iron, chert, and topsoil. Ditches would be constructed to prevent run-on from adjacent hillsides. Detention pond (DP-14) would be covered with chert. Water flowing through the ODA would be treated through the addition of organics and iron either at the inflow or the outflow. Post action monitoring would be performed.

3. **Diversion:** Pole Canyon Creek would be diverted around the Pole Canyon ODA. The surface of the ODA would be amended with organic material. Ditches would be constructed to prevent run-on water from adjacent hillsides. Detention pond (DP-14) would be removed along with approximately 30 cubic yards of sediment. Post action monitoring would be performed.

4. **Cap:** Pole Canyon Creek would be diverted around the Pole Canyon ODA. A low-permeability geo-synthetic liner would be placed over the ODA and covered with topsoil. Ditches would be constructed to prevent run-on from adjacent hillsides. Detention pond (DP-14) would be removed along with approximately 30 cubic yards of sediment. Post action monitoring would be performed.

The Action Memorandum, finalized October 2, 2006, approves the following selected actions to reduce selenium release from Pole Canyon ODA. Pole Canyon Creek flow into the ODA would be eliminated or significantly reduced by diverting creek flow around the ODA and by infiltrating flow into the Wells formation upstream of the ODA. The diversion line would be a buried pipeline diverting the flow of Pole Canyon Creek far enough upstream of the ODA to allow it to gravity flow over the ODA. A settling basin would be installed upstream of the infiltration gallery to remove sediment from the stream flow prior to entry into gallery and to prevent development of a sediment seal in the infiltration basin. The infiltration basin would be located immediately upgradient of the ODA to allow clean creek surface flow to infiltrate into the Wells formation and pass under the ODA without contacting overburden materials. Surface water run-on controls would also be included with this alternative. The infiltration basin and diversion would be managed to provide unimpacted water to support downstream beneficial water uses in Sage Valley and further downstream.

Consistent with the Action Memorandum and Administrative Settlement Agreement on Consent, construction of the Pole Canyon Creek diversion began in October 2006.

In review of the EE/CA alternatives developed by Simplot for the removal action, the Forest Service determined that a permanent solution for the remediation of the Smoky Canyon site other than the Pole Canyon ODA was not presented in adequate detail to support a long-term solution. Subsequently, the Forest Service plans to evaluate the data presented in the SI and EE/CA under remedial response process described in the NCP. Negotiations with Simplot to convert from the removal action process to the remedial process are planned for the winter of 2006-2007.

Prediction of Water Quality Improvements at Hoopes Spring in Response to the Pole Canyon Creek Diversion

Modeled estimates provided in the EE/CA state that the diversion of Pole Canyon Creek coupled with infiltration upstream of the ODA would isolate 93 percent of the water currently entering the overburden (**Figure 1**). Run on controls are estimated to eliminate an additional five percent of infiltration through the surface.

Some uncertainty remains with regard to the relative contribution of the different sources of water inflows to the ODA. Somewhat more uncertainty exists regarding the relationship of these inflows to selenium release (i.e., selenium loading) from the overburden. However, the existing surface water and groundwater concentration and flow data provide a basis for developing conservative assumptions regarding loading contribution for the above-described pathways.

A review of these data indicates that the current creek flow through the overburden is responsible for the discharge of the largest selenium load from the Pole Canyon ODA. **Figure 2** contrasts seasonal changes in selenium concentrations, along with flow and water levels in the creek upstream and downstream of the ODA (UP, LP) and connected alluvial system (GW-15), and the underlying Wells formation (GW-16). These data indicate that, as the creek inflows increase, the selenium concentration and load in the creek and alluvial groundwater downstream of the ODA increases correspondingly. As the creek inflow diminishes, the selenium concentrations and load in the creek at the toe of the ODA also diminish. This pattern is consistent with Pole Canyon Creek inflow being the primary selenium transport pathway. Seasonal loading calculations for these pathways during the SI period are shown in **Figure 3**. Although the loading is not directly proportional to inflow (e.g. Pole Canyon Creek is estimated to be 93 percent of the water entering the overburden) the seasonal pattern of loading indicates that the creek inflow provides the majority of transport and release to the environment in the spring of the year. This is consistent with observations at non-cross valley fill overburden disposal areas, where the selenium loading potential is much lower.

Given the data presented in the SI report, it was calculated that the planned Removal Action would eliminate up to 98 percent of the water flowing through the overburden (93 percent = Pole Canyon Creek, 5 percent = run-on) and would provide a 75 percent reduction in selenium mass transport.

Calculations using 75 percent reduction in load from Pole Canyon as the single source of selenium discharged from Hoopes Spring results in lowered discharge concentrations from the current measured range to less than 0.005 mg/L, once selenium currently in the flow path is discharged or diluted. A significant decrease in the Hoopes Spring selenium would correspond to a reduction in the Sage Creek selenium concentration downstream of Hoopes Spring. Typically, lower Sage Creek is just over the selenium water quality standard for part of the year. A decrease in selenium concentration at Hoopes spring is estimated to cause Sage Creek to be below the standard on a year-round basis.

As documented in the spring of 2006, above normal winter snow pack can cause Pole Canyon Creek to flow to Sage Creek increasing the selenium concentration and load carried downstream in Sage Creek. Because of the approved diversion around the ODA, water discharging from the diverted Pole Canyon Creek would no longer have a selenium load. Assuming the diversion effectively isolates Pole Canyon Creek from contact with mine overburden, future connections directly to Sage Creek would no longer add a selenium load. Residual seepage from the Pole Canyon ODA may still occur during the peak snowmelt conditions in the spring, however, when mixed with the clean flow of Pole Canyon Creek, dilution would reduce water concentrations.

Time to Achieve Water Quality Improvements at Hoopes Spring

The diversion of Pole Canyon Creek and reduction of run-on water are expected to have a relatively immediate positive effect on the groundwater directly beneath the ODA. An estimation of the time it will take to see measurable effects at Hoopes Spring is more difficult.

Analytical models, developed for the SI, based on gradient, hydraulic conductivity, and porosity of the Wells formation calculate groundwater travel time from the Pole Canyon Creek area to Hoopes Spring. However, the most reliable prediction for improvements to be observed at Hoopes Spring is the time it took selenium to appear once construction of the ODA began. **Figure 4** shows the change in selenium concentration in Hoopes Spring with time relative to the

period of overburden backfilling at Pole Canyon. The Pole Canyon ODA construction began in 1985 and continued to the early 1990s. Using roughly the midpoint of the backfilling (1988) and the obvious initial point of concentration increase in Hoopes Spring (1998) indicates that it took approximately 10 years for measurable selenium to appear. This period is consistent with the calculated transport velocity of slightly less than 3 feet per day.

In consideration of the above, it is anticipated that the effectiveness of the Pole Canyon ODA removal actions at Hoopes Spring could be witnessed in roughly 10 years. However, it is important to note that confirmation of the expected effectiveness may occur sooner. The strategic location of monitoring wells GW-15 and GW-16 allow for real time monitoring of residual selenium concentrations and loading potential for the alluvial and Wells formation groundwater pathways, after completion of the Removal Action. A reduction in selenium loading should be first observed at GW-15. Slightly more time may be required to observe a water quality change in the Wells formation at the deeper GW-16, given the thickness of the overlying unsaturated zone. Still, within a few years post construction, the effectiveness of the Pole Canyon actions should be evident at GW-16. Collection of these post action effectiveness monitoring data will allow for more accurate predictions of the magnitude and timing for selenium concentration reductions at Hoopes Spring.

The diversion of Pole Canyon Creek around the ODA is expected to reduce the selenium load in surface water flow Pole Canyon Creek down stream of the ODA to near background levels. Results are expected to be nearly immediate upon full implementation of the diversion.

Schedule for the Pole Canyon Removal Action

An Action Memorandum approving implementation of a Removal Response Action at the Pole Canyon ODA at the Smoky Canyon Mine was signed October 2, 2006. An Administrative Settlement Agreement and Order on Consent was entered into by J.R. Simplot Co., the Forest Service, IDEQ, U.S. EPA, and the Department of Justice, effective on October 18, 2006. A Statement of Work (SOW) required to complete the diversion of Pole Canyon Creek around the ODA was attached.

On October 6, 2006, the Forest Service authorized Simplot to begin tree removal and grading for the pipeline trench, which Simplot initiated the following week. Simplot purchased and received the necessary pipeline material, and construction of the diversion will continue into the remainder of 2006 as long as weather and site conditions allow, final work is planned for completion of the project during the summer of 2007.

Future Remedial Actions

The removal response actions currently underway at the Smoky Canyon Mine are the first of what are expected to be several CERCLA response actions at the site. Pole Canyon represents only a small portion of this large site. The Forest Service expects to convert the removal action SI and EE/CA to a more comprehensive remedial action. The Remedial Investigation would build upon the existing data to develop alternatives in a Feasibility study to provide a long-term solution to this complex site. The Forest Service and support agencies expect that the anticipated remedial action combined with the currently approved actions will result in a comprehensive cleanup effort. Capping to reduce or prevent infiltration, soil and waste amendments, revegetation, and water treatment are all envisioned as additional potential responses. Current actions taking place at the Pole Canyon ODA are likely only a component of the final remedial action.

Simplot has begun conducting greenhouse studies to analyze the effects of mixing biosolids with overburden materials on the surface of the ODA intended to reduce infiltration into the ODA and produce a reduction in bioaccumulation by reclamation plantings.

Simplot Proposed Interim Water Management Options

Simplot currently developed a plan with the Petersen Ranch downgradient of the site in Sage Valley to improve the efficiency of Petersen's current flood irrigation system in Sage Valley. Historically, the Petersen family has irrigated the middle and lower portions of Sage Valley by diverting water from Sage Creek and Hoopes Spring through a series of unlined ditches. Water diverted from these ditches is used to flood irrigate pasture used to raise livestock. Petersen diverts stream water from Pole Creek, Sage Creek, and Hoopes Spring pursuant to existing water rights. Planned modifications are consistent with the points of diversion and places of use described under these existing water rights, and focus on improved efficiency of delivery and application of diverted flows.

Within the limits of Petersen's existing water rights, the goals of the planned improvements are to optimize the use and efficiency of the Hoopes Spring irrigation water and to eventually improve the efficiency of the Sage Creek diversion and application system. In combination, these improvements aim to reduce the volume of water diverted from Sage Creek. Implementation of the sprinkler design is predicted to irrigate more pasture while using less water than is currently diverted from Sage Creek. If the project works as anticipated, more water would be left in Sage Creek to dilute selenium concentrations downstream of Hoopes Spring, resulting in reductions of selenium concentrations in lower Sage Creek.

Current Irrigation Practices and Planned Improvements

The Peterson Ranch has the following water rights for irrigation of Sage Valley:

Sage Creek:	15.78 cfs
Hoopes Spring:	2.54 cfs

Flow from these streams is currently diverted, part of the year, to a series of unlined ditches. Using branch ditches and earthen dams, the water is further distributed for flood irrigation. The existing flood irrigation systems are inefficient because unlined earthen ditches leak and result in an uneven distribution pattern.

Simplot owns the parcel of land containing the headwaters of Hoopes Spring. Improvement design plans for the Hoopes Spring irrigation system include the collection of the 2.54 cfs diverted from Hoopes Spring, a pumping basin, and a distribution pipe feeding multiple irrigation spray/sprinkler guns. System designers expect their system will provide a more effective and efficient means of transporting and applying irrigation water to the place of use currently irrigated. Agreements with Mr. Peterson will be in place before putting the sprinkler system in operation.

A second phase of improvements focuses on the system used to deliver irrigation water from upper Sage Creek to the middle Sage Valley. Currently, Petersen can divert up to 15.78 cfs from Sage Creek for irrigation. Water diverted into these ditches is then conveyed to the north and to the south, to the extent gravity allows. A series of canvas check dams and smaller lateral ditches convey water to various parcels for flood irrigation. Diversions placed by Petersen divert most of the flow in upper Sage Creek during the summer months leaving a

reduced base flow in the native channel between the diversion and the confluence with Hoopes Spring.

Both the main irrigation ditches and smaller lateral ditches are subject to substantial water loss through infiltration with little sub-irrigation benefit. The planned replacement of the ditch with a pipe delivery system is expected to improve efficiency by more than 50 percent. As a result, the place of use will be irrigated with less water diverted from Sage Creek. The improved efficiency should result in a substantial increase in summer base flows for lower Sage Creek, below irrigation diversions. Increased summer base flows would result in increased dilution of selenium starting at the confluence with Hoopes Spring flow. Implementation of the project to conserve water in lower Sage Creek would be contingent on agreements with the Peterson Ranch and the State of Idaho to allow the surplus water to remain in Sage Creek.

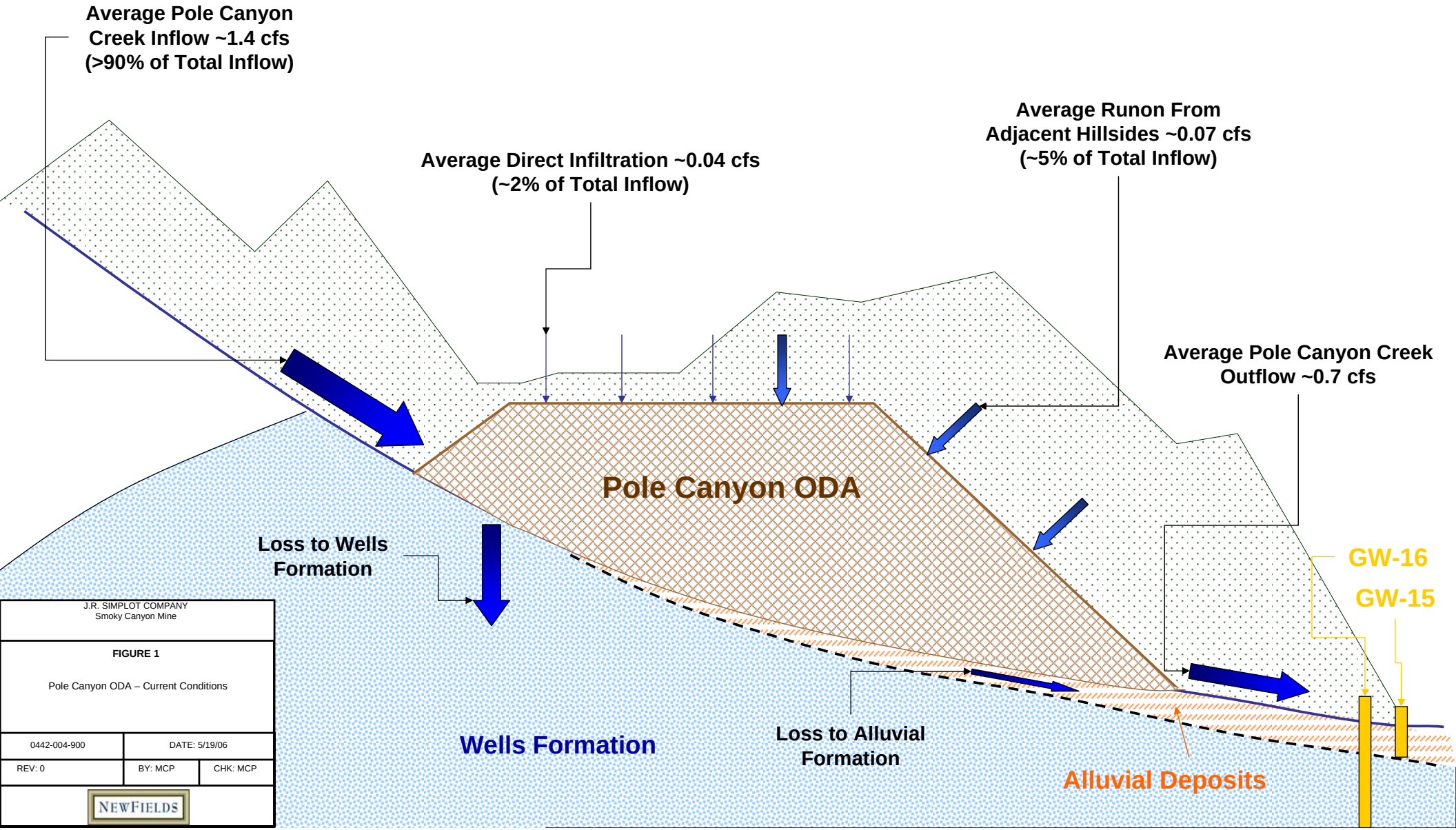
Selenium concentrations in vegetation in areas receiving Hoopes Spring irrigation water could increase slightly. However, Simplot does not expect that concentrations will increase substantially. Based on available information for Pole Canyon Creek irrigated areas, Simplot and IDEQ believe selenium concentrations in vegetation should remain well below the 5.0 mg/Kg selenium dry weight concentration in vegetation identified in IDEQ's "*Area Wide Risk Management Plan"* as a level of concern for livestock and grazing wildlife. Vegetation samples collected before, during and after irrigation would be analyzed according to the monitoring procedures, described in the *Smoky Canyon Mine Site Investigation Sampling and Analysis Plan*, to assure that the improvements in irrigation efficiency do not result in the bioaccumulation of selenium concentrations that would present an unacceptable risk to foraging animals.

Simplot believes that the improved irrigation efficiency and low selenium concentrations of the Hoopes Spring water relative to cattle ingestion and temporary ponding of water do not pose an exposure concern, although the system can be adjusted as necessary to minimize pollution potential.

In addition to the vegetation monitoring specific to the areas of application of Hoopes Spring water, surface water monitoring, as required to measure the effectiveness of remediation at the mine, would be continued in lower Sage Valley. Monitoring would evaluate the changes in water quality, selenium concentrations in vegetation, and pasture utilization. Lower Sage Creek would continue to be monitored monthly for selenium concentrations above and below the confluence with Hoopes Spring.

After monitoring the effectiveness of the irrigation improvements described above, Simplot, together with the Petersens, may consider additional water management options on adjacent private lands. Such options may include further irrigation system improvements to further improve the efficiency of the water diverted from Sage Creek. For example, an exchange between Hoopes Spring and Sage Creek to increase the amount of Hoopes Spring water used for irrigation may have a net effect to further reduce selenium concentrations within Hoopes Spring and further reduce selenium concentrations in lower Sage Creek. Simplot proposes to implement water management actions in the interim application until removal response actions implemented at Pole Canyon ODA demonstrate reductions in selenium concentrations in Hoopes Spring. Any such future surface water management options would be developed and pursued under the existing or future CERCLA agreements.

POLE CANYON ODA – CURRENT CONDITIONS



J.R. SIMPLOT COMPANY
Smoky Canyon Mine

FIGURE 1

Pole Canyon ODA – Current Conditions

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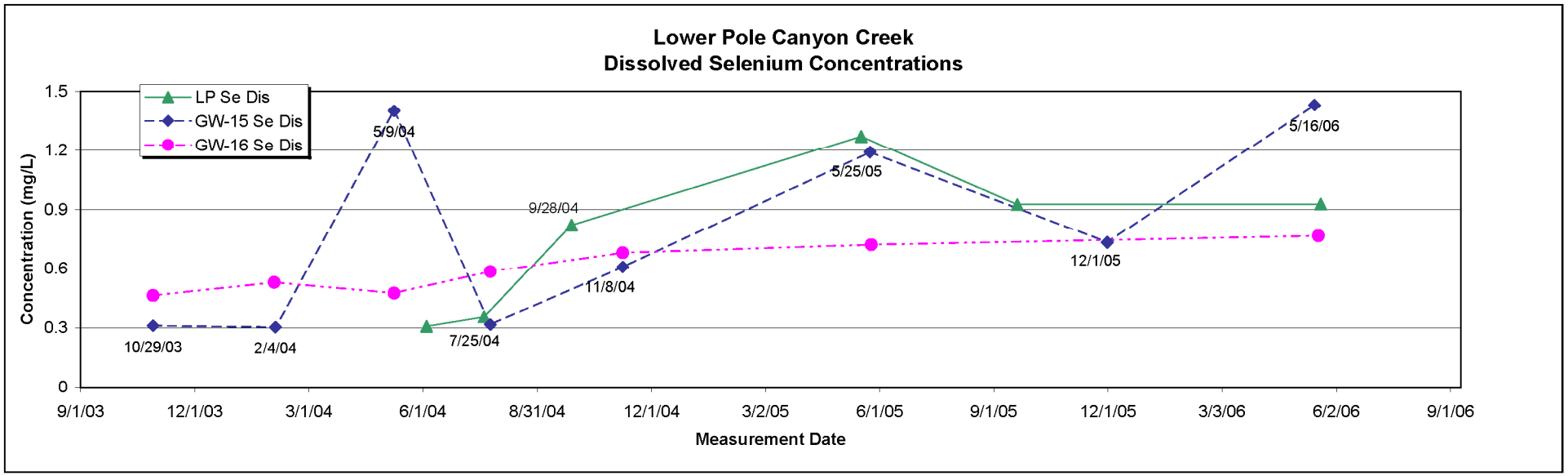

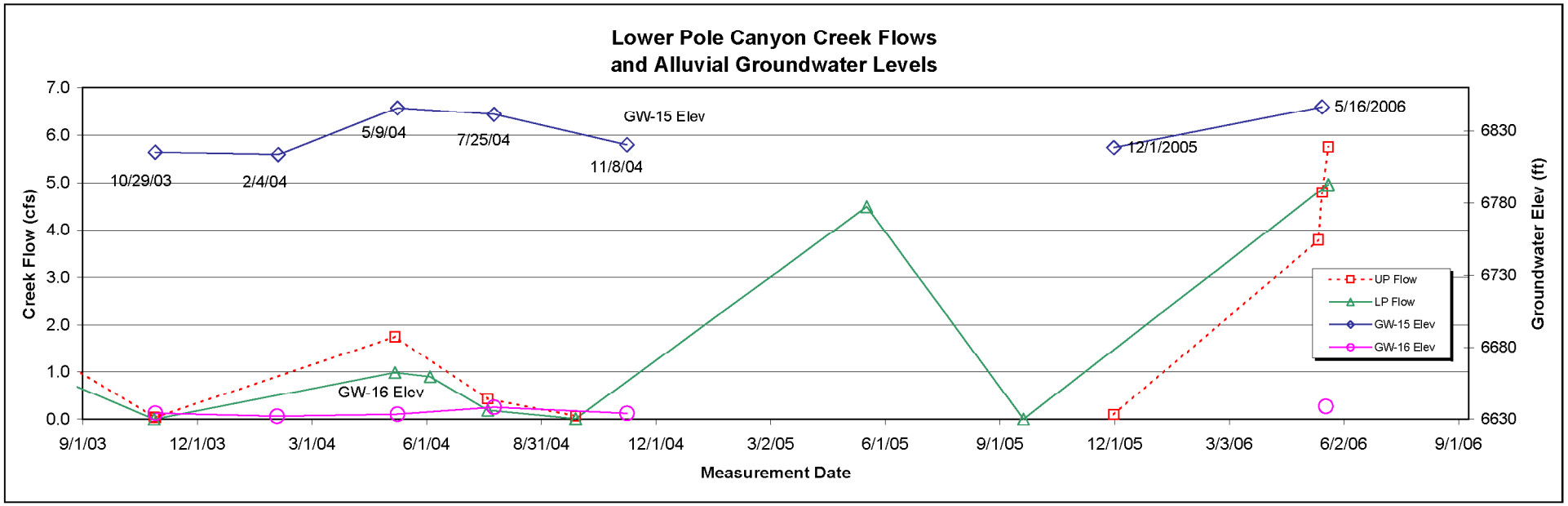

Figure 2. Flow, concentration and water levels in Lower Pole Canyon.

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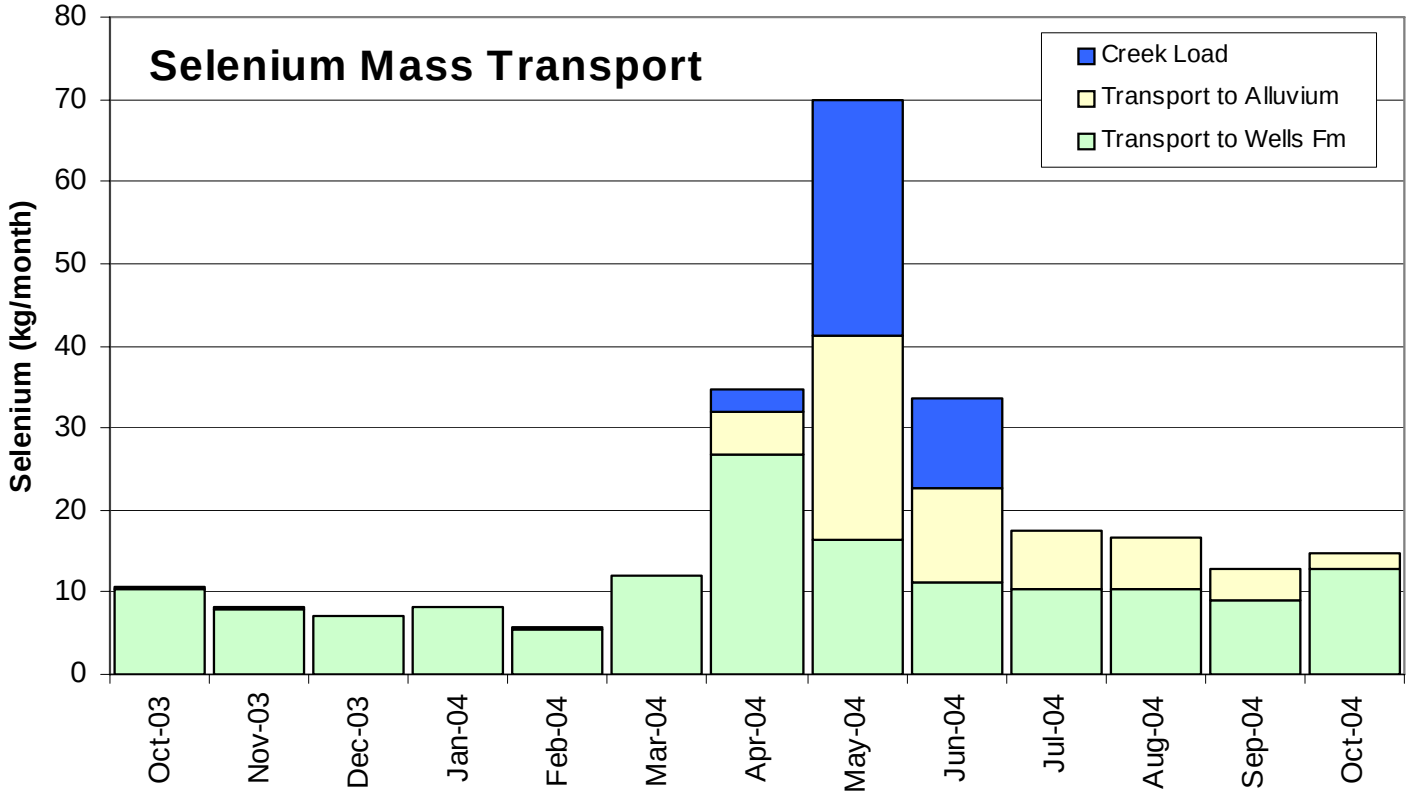

J.R. SIMPLOT COMPANY Smoky Canyon Mine		
FIGURE 3 Selenium Mass Transport from Pole Canyon Overburden Disposal Area		
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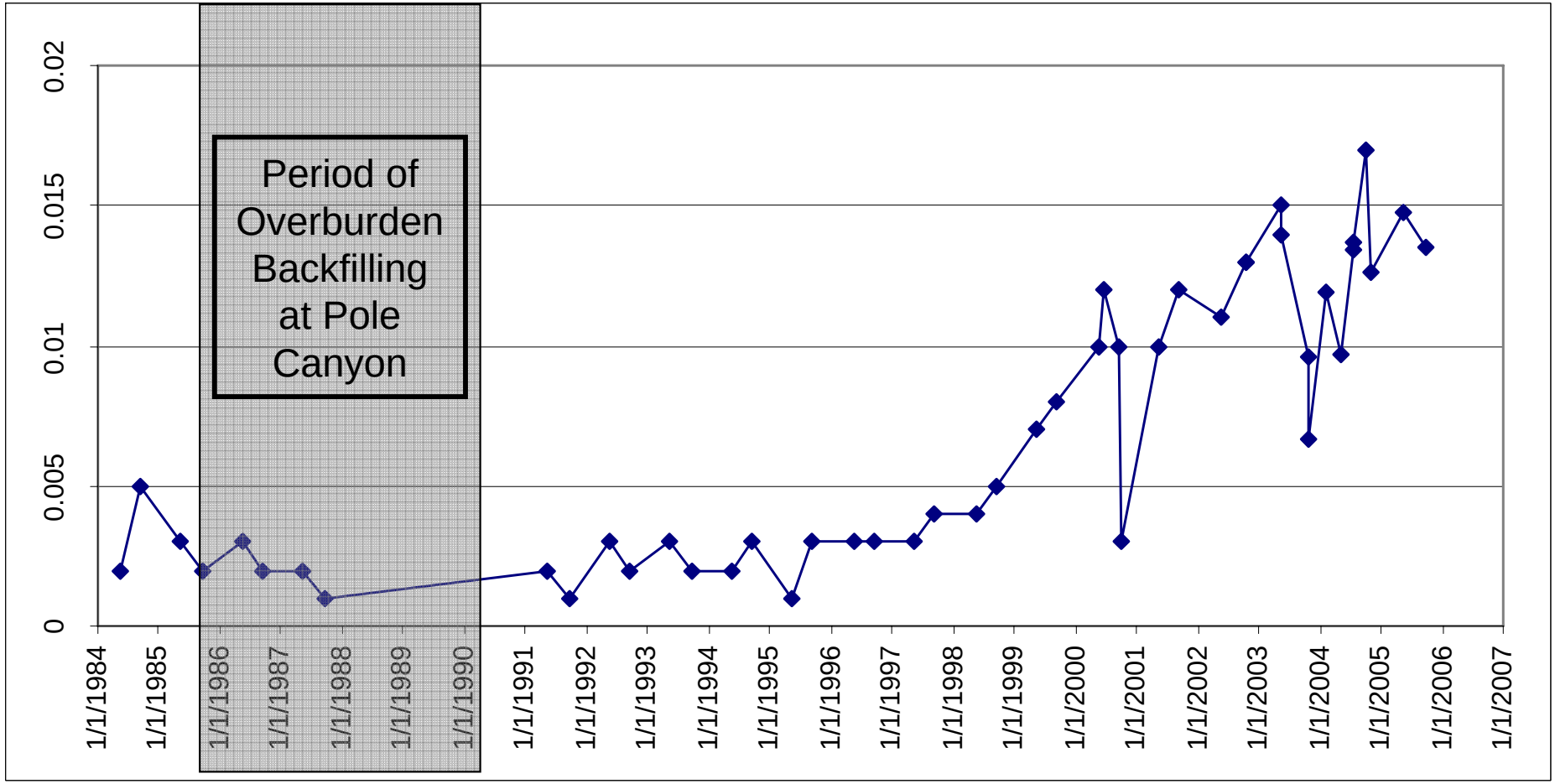
Selenium in Hoopes Spring Water



J.R. SIMPLOT COMPANY Smoky Canyon Mine		
FIGURE 4 Selenium in Hoopes Spring Water		
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