

## Resume – Carl Seward

Mr. Seward holds the position of President and Director of Operations of ART Engineering, LLC. In this position, he is responsible for directing all project activities from treatability studies to design management, plant fabrication, project startup and operations.

Previously, Mr. Seward was Director of Operations for Surbec-ART, and before that, Vice-President of Operations with the ART Division of ARCADIS Geraghty & Miller, Inc., and he was responsible for all soil washing and remediation operations.

Mr. Seward has over 35 years of diversified mining engineering experience, construction management and environmental remediation. This mining experience includes mining engineering, mine permitting, new-mine construction, mine startup and operation of gold mines in Utah, Montana and South Dakota. His engineering experience in mining includes open pit mine design and process plant layout, construction and operations. Mr. Seward's mining operational experiences include the positions of: staff engineer, mine shift foreman, mine superintendent and mine manager.

Mr. Seward also has extensive engineering, management and field experienced in remediation of contaminated soils by implementing Soil Washing Technologies. His relevant project experience includes:

### **Soil Remediation Experience, 1990-present**

#### BEFESA – Madrid, Spain

Directed and managed the engineering, design, procurement and USA fabrication of this soil washing plant for BEFESA, Madrid, Spain. This plant was specifically design for a wide range of soil types and contaminants as well as expandable for future secondary soil treatments. This plant was shipped from Florida, USA to the Rio Tinto region of Spain. Assisted in the on-site assembly of the plant at this BEFESA owned landfill. Modification and assembly supervision of this plant for a project in Gibraltar.

#### Pennbrook Homes – Bend, Oregon

Project Manager for a skeet range lead shot separation operations.

#### AG Ambiental – Lezo Project, Spain

Directed engineering and design of hydrocarbon soil washing plant for AG Ambiental, Madrid, Spain. Responsible for plant inspections, plant start-up commissioning and ongoing project support.

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President  
Director of Operations  
ART Engineering, LLC  
Tampa, Florida  
[www.art-engineering.com](http://www.art-engineering.com)

### **Education**

B.S. Mine Engineering,  
University of Montana,  
Montana College of Mineral  
Science and Technology,  
Butte, Montana, 1978

### **Professional Training**

E.I.T. Montana  
Florida State Contractor's  
License

OSHA 29 CFR 1910.120  
40-hr HAZWOPER Training

OSHA 29 CFR 1910.120  
Eight-House Site Supervisors  
Training

Radiological Worker Level II  
Training

### **Professional Associations**

American Institute of Mining  
Engineers

### **Military Service**

US Army – SGT  
Vietnam 1968-1970

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### Vineland Chemical Superfund Site, New Jersey

Directed the engineering and designing of a soil processing plant to remove Arsenic from approximately 410,000 tons of contaminated soils. Supervised and inspected the fabrication of key components of the plant. Managed the operators' training and the plant startup and commissioning.

### Lordship Point, Bridgeport, Connecticut

Director of Operations for the remediation of 60,000 tons of lead shot and target fragment contaminated soils. Managed the design, fabrication, mobilization to the site, plant construction and operations during the "validation run", prior to the full-scale operations. Based on the data from the "validation run", Mr. Seward recommended modifications to the process plant for the full-scale operations.

### DaimlerChrysler Springfield Superfund Site, Davisburg, Michigan

Director of Operations for the remediation of 13,300 tons of PCB contaminated soils. Responsible for the work plan production and implementation. Mr. Seward also managed the plant design, fabrication, direction of site activities and attainment of the cleanup criteria within the client's specified time frame and budget.

### DOE - RMI Titanium Company, Ashtabula, Ohio

Construction Manager for remediation of low-level radioactive waste contaminated soils, for the RMI Titanium Company, U.S. Department of Energy site in Ashtabula, Ohio. The duties included the design management of the full-scale soil washing plant.

### Dade County Aviation Department, Miami, Florida

Site Operations Manager for the remediation of PAH contaminated soils for the Date County Aviation Authority at Opa Locka Airport in Miami, Florida. Responsible for plant design, equipment selection, procurement, startup and site operations.

### The Monsanto Company, Everett, Massachusetts

Project Manager for the soil washing at the Brownfield site. Created an innovative treatment train, incorporating units for treatment of the contaminated fines and oversize. Responsible for the plant configuration and refurbishing, plant assembly, startup and site operations.

### City of Montreal, Montreal, Quebec, Canada

Site Operations Manager for a fixed-facility soil washing plant. Responsible for the construction of the plant inside a building, startup, site operations and submittal of a report to the city.

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### DOE - Hanford Site, Richland, Washington

Operations Manager for soil washing of Uranium-contaminated soils. The responsibilities included management of all site mobilization, operations, decontamination and demobilization.

### King of Prussia Site, Winslow, New Jersey

Site Operations Manager for the first full-scale implementation of soil washing in the USA. Responsibilities included directing the plant engineering and design, equipment selection, plant fabrication, plant assembly, commissioning and startup and operations management. Implemented the design and managed groundwater cleanup plant.

## **Expert Services**

### Port Heiden, Alaska

Consulting services with regard to the reasons for the failure of the PCB remediation of an abandoned US Air Force radio facility in a remote area of Alaska.

### Buckeye Oil Field, Michigan

Consulting services for HLA Environmental Services of Michigan, Inc., to evaluate the failure of a full-scale ex-situ remediation system at the Buckeye Oil Field Project, Michigan.

### Conor Pacific, Edmonton, Alberta, Canada

Consulting Engineer providing litigation support for Conor Pacific Environmental Technologies, Inc., to evaluate engineering and performance at the Domtar remediation project in Edmonton, Alberta, Canada. The client won the \$3.5M arbitration.

### Gould Battery Superfund Site, Portland, Oregon

Consulting Engineer for the Gould Site PRP Group for evaluation of design flaws and failed operations of the Gould Battery Superfund Site remediation project in Portland, Oregon. Responsibilities included review and analysis of the technical design and design basis for a lead recycling/soil separation system, including water treatment circuits and assistance in the development of litigation strategies. This case resulted in a \$10M settlement in favor of the Gould Site PRP Group.

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### **Other Experience - Mine Engineering, Construction and Operations, 1978-1989**

#### Brohm Mining Corporation

Mine Superintendent of the Gilt Edge Gold Mine, Deadwood, South Dakota, owned by Brohm Mining Corporation. Responsibilities included supervision of engineering, construction, startup and Mining Superintendent of this \$22 million Cyanide-heap-leach project.

#### Montana Mining and Timber

Operations Manager of the Gold Creek Mine, owned by Montana Mining and Timber, Anaconda, Montana. Responsible for the engineering and construction management of this \$5 million placer-mine project.

#### Getty Oil Company

Mine Maintenance Shift Foreman and Construction Supervisor for the engineering, construction, startup and operations of the \$80 million carbon-in pulp Mercur Gold Mine, owned by Getty Oil Company, Minerals Division in Salt Lake City, Utah.

#### Utah International

Mine Engineer for coal mining at the Navajo Mine in Farmington, New Mexico.

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