Experience & Skillset

Current Training and Certifications:

- Safeland training and certification
- SWPPP inspector training and certification
- ESA Phase I ASTM certification

Previous Training and Certifications:

- WY Substitute Teaching Certification
- Wilderness EMT
- OSHA H2S Gas Safety Course
- Certified Associate Soil Scientist

Research and Environmental Consulting

ESA Phase I inspections and reporting; SWPPP inspections and reporting; open pit sampling; soil, vegetation, and water sampling; other compliance work. Study design, literature review, data collection, management, and presentation. Technical report writing. Reclamation surveys and plan development. Client coordination, office management, and staff supervision. Project and budget management.

Funding Acquisition

Acquisition of funding for graduate research fellowship, photojournalism fellowship, successful bids for requested project proposals.

Client Coordination

Experience as sole point of contact for business clients, comfortable communicating across wide range of personalities and abilities.

Biology

Song bird point counts, small mammal trapping, vegetation and wetland surveys, bear hair sampling, pygmy rabbit, burrowing owl, and sage grouse surveys, medicinal herb identification and collection.

Wilderness and Recreation:

Extensive training and comfort with wilderness living and emergency response, independent travel and navigation, predator awareness, Leave No Trace practices, trail etiquette, basic horsemanship and packing skills, avalanche training, extensive work and recreation experience in backcountry. Distance runner. Proficient climber, skier, hiker, swimmer, horseback and motorcycle/ATV rider.

Service Industry

Restaurant and catering work, ski instructor, spa fitness attendant.

Labor

Extensive farm and ranch work, very comfortable working cattle on ground and horseback (though a poor roper excellent at sorting/herding), irrigation, feeding, doctoring, equipment operation including tractors and other large standard transmission vehicles, fencing, calving, processing, rotational grazing plans and implementation, raw milk production and distribution, on farm harvesting.

Trail crew work including building and reestablishing trail systems in forest with chainsaw as well as non-mechanized tools in wilderness areas including pick-axes, shovels, hand saws, and crosscut saws

Maintenance/ Construction:
basic plumbing, electric, carpentry, auto (can change oil, tires, fuel pumps/filter, alternator), painting, basic household, basic cement work.

Communication
Strong verbal and written communications skills, experience in public presentations, report writing, and teaching. Digital photography capture and editing with Mac ios and Adobe Photoshop, website design, marketing with print and online applications.

Event Planning:
Coordination and management of conferences, workshops, and other multiday events.

Teaching
Experience teaching college level course work as well as substitute teaching certification.

Lab Please see below excerpt from my thesis on analyses for which I had proficiency.

Time Sensitive Analyses

Upon return to the lab from the field, BD samples were weighed for moist weight then set out to air-dry with dry samples. Analysis of time sensitive samples began immediately, and included extraction of time zero (To) samples with 50.0 ml of potassium sulfate (K2SO4); chloroform fumigation of microbial biomass (MB) samples; and incubation of PMC and PMN. Gravimetric moisture was also measured by oven drying on day one and day 14. PLFA samples were frozen until analyzed (Table 4).

Table 38. Time sensitive lab analyses conducted on soil samples.

Analyses	Gravimetric Moisture	MB, DOC, DON	PMC	PMN	PLFA
Sample Analyzed	Time zero (To) Day 14 (Tf)	Non-fumigated (To) Fumigated (MB)	Day 1,4,7,14 CO_2 (PMC)	Time zero (To) Day 14 (PMN)	Immediately upon thawing
Sample Size	To- 10.0 g Tf- 10.0 g	To- 10.0 g MB- 10.0 g	5.00- 7.00 ml	To- 10.0 g PMN- 22.0 g	5.00 g
Nutrient/ Substrate Measured	moisture content	DOC, DON, MBN,MBC	PMC	initial & potential NO_3^-, NH_4^+	Total MB Bacteria: Total, Gram +, Gram – Fungi: Total, AM
Equipment/ Solution	oven	Shimadzu TOC Analyzer	Licorr	Biotek 0.50 M K_2SO_4	Gas Chromatograph
Method	Gardner, 1986	Horwath and Paul, 1994	Zibilske, 1994	Doane and Horwath, 2003	Frostegard and Baath, 1991 Buyer et al., 2002

Table 39. Biomarkers used to measure phospholipid fatty acids.

Microbial Pool	Gram +	Gram -	AM Fungi	Fungi
Biomarkers	053: 14:0 ISO 077: 15:0 ISO 078: 15:0 ANTEISO	103: 16:1 w9c 129: 17:0 CYCLO 151: 18:1 w9c	107: 16:1 w5c	149: 18:2 w6c

Non-Time Sensitive Analyses

Non-time sensitive analyses included measuring: pH; EC (EC); particle size analysis (PSA); total C and N from each sample, as well as from a 5.0-7.0 mg subsample of the free (F) light fraction collected from organic matter fractionation; inorganic C (IC), and bulk density (BD) (Table).

Table 40. Non-time sensitive lab analyses conducted on soil samples.

Analysis	pH	EC	PSA	Fractionation	Total C & N	IC	BD
Sample Size	10.0 g	10.0 g	60.0 g	10.0 g	20.0-25.0 mg	10.0 g	2 clods
Pre-Treatment	2 mm sieve	2 mm sieve	2 mm sieve HMP rinse	6.35 mm sieve	2 mm sieve ground	2 mm sieve ground 6 *M* HCl	air dry
Equipment/ Solution	pH meter	EC probe	5.0 % HMP	1.8g/cm^3 NaI	Carlo Erba Elemental Analyzer	Pressure Calcimeter	Paraffin
Method	Thomas, 1996	Thomas, 1996	Gavlak et al., 2005	Sohi et al., 2001	Nelson & Sommers, 1982	Sherrod et al., 2002	Blake, 1986