

Douglas Wayne Emme

Graduated December 1975 from South Dakota School of Mines & Technology

BS in Geological Engineering

Four year varsity football starter and letterman; member Drill & Crucible;
Theta Tau Professional Engineering Fraternity, Vice Regent and Housing Manager;
Participated and coached intramural athletics; 1975 Who's Who in American Colleges &
Universities

First exposure to blasting was in the fall of 1971 during visits to the Homestake underground gold mine.

Coached Jr. High girl's volleyball, girl's basketball, boy's basketball, and girls and boys track for 8 years at Holy Name Catholic School. Coached Little Guy football for 5 years.

Member of: Elks; Knights of Columbus; Northern Plains Chapter of the International Society of Explosives Engineers (serving on the Board of Directors for one term); International Society of Explosives Engineers; Wyoming Board of Professional Geologists; Ducks Unlimited; Pheasants Forever; Rocky Mountain Elk Foundation

WORK HISTORY

Jan. 1976 – Sept. 1977: Decker Coal Company

Design Engineer – short and long range mine planning, scheduling, cost estimating, mine pit design, dragline pit design, blast pattern design, sediment pond design, diversion design, etc. The blast pattern design work included laying out patterns, evaluating the effectiveness of the blasting program, helping to load holes and tie-in shots and work as a fill-in foreman. I attended the 40-hour E.I. DuPont "Surface Blasting" class and the Ensign-Bickford class on shock tube initiation systems during this period.

September 1977-May 1979: Adjunct Professor at Sheridan College

Taught "Introduction to Mining" and "Mining Technology" at Sheridan College during the evenings.

Oct. 1977 – Jan. 1979: Decker Coal Company

Scraper crew foreman – managed a mobile equipment fleet stripping overburden and topsoil, building roads, ponds, and diversion ditches. The crew also worked on leveling and grading blast patterns so the drills would have a decent pad to work on. I completed the Montana Surface Mine Foreman's training class and passed the exam and am currently a Certified Mine Foreman in Montana – certificate number 260.

DEQ Exhibit 30

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Feb. 1979 – Feb. 1980: Decker Coal Company

Dragline foreman – managed the stripping operation and maintenance of two B.E.1570-W walking draglines and one B.E. 1300-W walking dragline. The dozers that were dedicated to the draglines were also tasked with leveling overburden drill patterns, cleaning coal drill patterns and building access roads to the patterns for the drills and explosives trucks.

March 1980 – Dec. 1982: Decker Coal Company

Truck/Shovel foreman – managed the stripping and maintenance of 3 P&H 2300 shovels, trucks, and support equipment. Assisted with overburden pattern leveling and other support work for the drill and blast crew.

Jan. 1983 – March 1985: Decker Coal Company

Drill & blast foreman – managed the drilling and blasting operation, which included 3 large electric overburden drills, two coal drills and the blasting crews. Work included designing and laying out blast patterns, ordering explosives products, maintaining explosive inventories, helping to load holes and tie-in shots, initiating shots, assuring that all access points were properly blocked prior to detonating a pattern, working with blasting consultants to continually improve the drill and blast operations, etc. During this time SMCRA required all persons working with explosives as the blaster-in-charge to be certified and I attended the State of Montana Surface Blaster Certification training program, passed the exam and was certified as a Surface Blaster in Montana. The mine was one of the first mines in the Western United States to utilize high speed video photography to analyze shots. The mine also implemented cast blasting in portions of the mine to move portions of the overburden with the cast blast and these were some of the first cast blasts in the Western US. I currently hold Montana Surface Blaster Certificate no. C02005 which is valid until September 14, 2017.

During my stints as a foreman I accumulated over 160,000 man hours supervised without a reportable accident.

April 1985 – January 1988: Decker Coal Company

Operations Superintendent – managed all pit operations at a large surface coal mine, including all topsoil stripping, overburden removal, coal extraction, and environmental compliance. This included the oversight of 15 crew foremen and over 220 craft and overhead personnel. At the time the mine used 3 BE draglines and 3 P&H shovels to strip overburden and 4 BE shovels to remove coal. The drill and blast operations were an integral part of the operations I supervised.

While Operations Superintendent there were no reportable accidents on any of the crews under my supervision.

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March 1988 – September 1989: Husman, Inc.

Job superintendent – estimated, bid and managed construction and road projects. Work included bridge construction, rock crushing, road construction, contract topsoil and overburden stripping.

November 1989 – present: State of Wyoming

Blasting Program Principal – train and license blasters, investigate blasting complaints, monitor blasts with seismographs, mine site inspections, does reclamation bond estimates for large surface mines in the state, bond estimates for small mines, sediment pond design reviews, diversion design reviews, permit reviews, blasting oversight inspections, permit blasting plan reviews, etc.

Other Training

DuPont Drill & Blast seminar, WESCO Blaster Training, DYN0-Nobel Blaster Training, Ensign Bickford shock tube training, Ensign Bickford safety training, Dr. Calvin Konya Blaster Training, John Floyd's Blast Dynamics Training, Nelson Brothers blasting training, Atlas Explosives training, Peabody Coal blaster training, Orica Explosives blasting training, MSHA Mine Blasting Safety Seminar and numerous other blasting related training classes.

OSM Effective Speaking class.

Numerous other OSM classes including: spoil handling, use of GPS, acid mine drainage, reclamation bonding, legal testimony, inspection practices, etc.

Certifications

Licensed Professional Geologist in Wyoming, PG #518

Certified Mine Foreman in Montana, no. 260

Certified Blaster in Wyoming, license no. WS 0445-15 (valid until 9-14-2020)

Certified Blaster in Montana, license no. C02005 (valid until 9-14-2017)

Classes Taught

Adjunct Professor at Sheridan College 1977-1979 teaching Introduction to Mining classes

Wyoming Blaster Certification class – teaches approximately 4 sessions per year for the past 27.5 years

OSM Blasting & Inspection – has taught this annually since 2000

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OSM Advanced Blasting – has taught this for the past 15 years

Department of the Interior instructor for outreach to Costa Rica in 2012 – taught Costa Rican officials the basics of drilling and blasting and the adverse effects on structures near mines and quarries

Utah Blaster Certification – taught in 2016 for the State of Utah and scheduled to teach for them again in 2017

Presentations

Speaks annually at the Best in the West Drill & Blast seminar- 26 years

Presented at the International Society of Explosives Engineers International Drill & Blast seminar in 2000, 2010 and 2015

Presented at the South Dakota School of Mines for upper class mining engineering classes

Qualifications

Operates: pickups, dump trucks, tractor backhoes, track dozers, rubber tired dozers, front end loaders, scrapers, blades, off-road haul trucks, P&H and B.E. electric mining shovels, B.E. electric walking draglines

Uses: computers, computer software, GPS units, cameras, and seismographs regularly
Down hole cameras, gas monitors occasionally

Developed

Wyoming DEQ – Land Quality Division Guideline for Estimating Reclamation Bond Costs
This Guideline is updated annually or more often if necessary with current equipment costs.

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Drill & Blast Consulting

Has done independent drill and blast consulting out-of-state with the Wyoming DEQ Director's permission on several occasions.

Court Experience

Was deposed on several occasions while working in industry and also testified in court on cases of unlawful termination, age discrimination, bankruptcy and injury allegations. Has also acted as an expert witness in a blasting fumes lawsuit in a neighboring state.

Has testified in front of the Environmental Quality Council in Wyoming on various blasting related disputes between industry and the Regulatory Agency and was recognized as an expert blasting witness in all cases.