

Teacher Education Seminar Bismarck State College June 27-30, 2022

Events will be conducted in the Bavendick Stateroom located at BSC in the National Energy Center of Excellence, 1200 Schafer St., except for the refinery tour on Tuesday and the oil patch tour Wednesday. On Thursday, teachers will have the choice of touring the Bismarck Career Academy or the Gateway to Science.

MONDAY, JUNE 27

Bavendick Stateroom

- 7:45 a.m. Check-In Opens Teachers take Pre-Test
- 8:15 a.m. Opening Session Welcome, introductions, agenda and credit registration Ron Ness, President, North Dakota Petroleum Council
- 9:00 a.m. The History of North Dakota's Black Gold <u>20th Annual Oil Trivia Bowl</u> Katie Haarsager, North Dakota Department of Mineral Resources Sydney Arends, North Dakota Petroleum Council
- 9:45 a.m. Break
- 9:50 a.m. Energy and You (What is energy and how do we use it?) Kathy Neset, Neset Consulting
- 10:15 a.m. Bakken 101 Overview of ND as a top national/world producer & key terminology Kathy Neset, Neset Consulting
- 10:30 a.m. Petroleum Geology Where is the oil and gas, and how do we know where to find it? Rich Suggs, Petroleum Geologist, North Dakota Oil and Gas Division
- 12 p.m. Lunch is served
- 12:30 p.m. Physics in Petroleum How do we use Math, Physics and Computers to Search for Oil? Lynn Helms, Director, North Dakota Dept. of Mineral Resources
- **1:30 p.m.** Petroleum Engineering / Fracing 101 Drilling, Fracing and Production: How it works Justin Kringstad, Director, North Dakota Pipeline Authority
- 2:30 p.m. Break
- 3:00 p.m. Classroom Activities Hands-on Activities including Industrial Electronics, Reclamation, Process Plant Construction, and Frac Fluid Kent Ellis, ND Energy Education Coordinator, Bismarck Schools/Aurora Energy Solutions
- **4:30 p.m.** Black Gold Drilling Game Day 1 & Opening Day Social (Appetizers and Beverages) Kent Ellis, Energy Education Coordinator, ND Energy Education
- 5:30 p.m. Day 1 complete

TUESDAY, JUNE 28:

Tour Day

*Please note that tour times and arrival time back in Bismarck may be subject to change based on road conditions or construction and other unforeseen circumstances.

- 6:30 a.m. Breakfast - Day 1 Summary and Evaluations - Bavendick Stateroom
- 7 a.m. Bus departs for North Dakota's Oil Patch
- 7:10 a.m. Partnerships with Industry Speaker TBD

Circa 9:30 CST/8:30 MST **Arrive Drill site**

> (CLR's current rig sites are all north of Killdeer) Orientation and depart for rig Break into three or four groups for rotations:

• Well Pad Construction (CLR Rep)

- Location Selection
- o Leasing
- Environmental Protections
- Drilling & Completions
 - o Equipment On-Site
 - Drilling Process
 - o Personnel Run-Down
 - Geology/Mudlogging (Kathy or CLR rep?)
- Production
- Reclamation?

Circa 12:30 CST/11:30 Depart for State Park (inclement weather contingency is Bear Creek Gas Plant

- 12:50 p.m./ Lunch at State Park sponsored by Arriba Production Services/Bakken Supply – Speaker TBD 11:45 MST
- 1:30 p.m. CST Depart for Bear Creek Gas Plant
- 1:45 p.m. CST Arrive Bear Creek Gas Plant Presentation/Tour
- 2:45 p.m. CST Depart for Bismarck
- Circa5:15 p.m. Arrive Bismarck

WEDNESDAY, JUNE 29

Meet in the Bavendick Stateroom for breakfast prior to the Marathon Petroleum Refinery Tour

7:00 a.m. Breakfast - Day 2 Summary and Evaluations

7:30 a.m. Load bus and depart for Marathon Petroleum Refinery

- 8:00 a.m. Refinery Bus Tour Return to BSC Campus
- 9:15 a.m. Refining 101 Turning crude oil into gasoline | Gasoline Marketing- How is gas priced? Ron Day, Consultant, Marathon Petroleum
- 10:30 a.m. Break
- 10:45 a.m. Moving oil and natural gas from the well site to the consumer Justin Kringstad, Director, North Dakota Pipeline Authority
- 12:00 p.m. Lunch is served
- 12:30 p.m. The Energy Reality: Fossil Fuels in Our Future Speaker TBD: Energy and Environmental Research Center (EERC), Grand Forks - Overview of future energy needs;
 - Comparison of energy resources;
 - Comparison of energy resources,
 - Oil will remain predominant (EIA and IEA studies)
 - If oil is here to stay, how are we addressing challenges spills, flaring, climate change, etc.
- 1:45 p.m. Break (5 min.)
- **1:50 p.m. EGS: Environmental, Social, and Governance** Preston Page, Dakota Energy Advisors
- 2:30 p.m. Classroom Activities: Black Gold Drilling Game Day 2: Kent Ellis Enbridge Activity: Wendy Pank, Community Engagement Advisor, Enbridge (Canada's largest natural gas distribution provider)

3:30 p.m. Energy Classroom Resources:

- **ENERGY: Powered by North Dakota Curriculum and Resources for ND Studies and Beyond** Alicia Uhde, Director, Great Plains Energy Corridor at BSC
- 4:00 p.m. Break
- 4:15 p.m. Virtual Reality Career Exploration Matt Chaussee, Career View XR & BeMoreColorful Founder/CEO
- **4:45 p.m.** North Dakota Petroleum Foundation- Building Relationships and Outreach in the Bakken Tessa Sandstrom, Executive Director, North Dakota Petroleum Foundation
- 5:15 p.m. Education Resources Review
- 5:30 p.m. Day 2 complete

THURSDAY, JUNE 30

Bismarck Public Schools Career Academy on the Bismark State College Campus, Multi-Purpose Room B

8 a.m. Breakfast

8:15 a.m. Ron Ness: Announcements & class requirement review (paper; CEUs, etc.), final questions

- 8:30 a.m. Energy and Industry Career Choices Kent Ellis, ND Energy Education Coordinator, Bismarck Schools/Aurora Energy Solutions
- 9:15 a.m.
 Careers for the Oil & Gas Industry Panel

 Moderator:
 Katie Haarsager, Public Information Officer, ND Dept. of Mineral Resources

 Speaker:
 9:15-9:45:
 Mary Ann Whetzal, Liberty Oilfield Services Recruiter

 Panelists:
 9:45-10:45:
 panel discussion with Mary Ann and others:

Tanner Hopfauf, ND Energy Services – experience as someone who wanted to stay and work here in ND.

Kara Glenn, Director of Business Development, Silver Fox Pipeline & Facilities Services – woman in welding; her experience in military & role as trainer/mentor through Trade Ready.

TBD:

- 10:45 a.m. Break
- 11:00 a.m. Tours Break Out to Bismarck Career Academy or Gateway to Science (max 30)
- 12:30 p.m. Dismiss