



## Why Use Performance Chemical Company

### *(Production Chemicals Division)*

#### **Oil & Gas Industry Associations:**

- Permian Basin Petroleum Association (PBPA)
- Southwestern Petroleum Short Course (SPA)
- Society of Petroleum Engineers (SPE)
- National Association of Corrosion Engineers (NACE)
- Association of Petroleum Industry (API)
- U.S. Oil & Gas Association (USOGA)
- DUG Permian Basin (DUG)
- Permian Basin Petroleum Museum
- Oil & Gas UK

#### **Safe & environmentally conscious chemical treating programs**

- QHS&E risk assessment awareness
- Safety procedures, processes & best practices
- System integrity awareness
- Safe handling of chemical products awareness
- Commitment to the health and safety of our customers, employees, and general public
- The safest possible work environment and strives to continuously improve our QHS&E programs

#### **QHS&E Licenses & Registrations:**

- Contractor Safety Orientation
- Excavation/Shoring/Trenching (Basic)
- HazCom & Chemical Safety
- Hazard Communications
- HAZWOPER Level 1 Awareness
- Fall Protection/Ladder Safety
- Electrical Safety
- Emergency Action/Fire Prevention
- First Aid (Basic) & Bloodborne Pathogens

- Confined Space Entry-Attendant/Entrant
- Hand Tool/Power Tools
- Hearing Conservation
- Lockout/Tagout
- Personal Protective Equipment
- Respiratory Protection/Fit Test
- Hydrogen Sulfide (H<sub>2</sub>S)
- Take Two - Behavioral Based Safety Training
- OSHA/RRC Regulations
- Company Policy/Contingency Plan
- Benzene Awareness
- H<sub>2</sub>S Detection & Monitoring
- Job Site Analysis
- Tailgate Safety Meeting
- Characteristics, Toxicity, Severity of H<sub>2</sub>S & SO<sub>2</sub>
- Winds, Ventilation, Evacuation
- Rescue/Egress
- Medical Response/Follow-up
- Near Misses
- CPR Certified - Medical First Aid for Adults
- AED Certified - Medical First Aid for Adults

### **Management Services Provide:**

- A commitment to meet and exceed industry standards and are fully prepared to respond to the demanding challenges of our industry
- Customer training upon request
- An effort to build partnerships with our customers
- SOP's & KPI's protocols for basic product selection, application & optimization
- SOP's & KPI's protocols for specialty product selection, application & optimization
- Oversight for field product trials, subcontractors & auxiliary equipment
- Storage tank audits
- Product inventory control programs
- On time product delivery programs
- Schedule & facilitate product usage review meetings
- Coordinate product approvals & mandatory and/or regulatory information

### **Support Services Provide:**

- Extensively Trained Account Managers & Field Technicians to assist in achieving & maintaining uptime & production goals
- Current equipment technologies for onsite treatments & services designed to increase the productivity of our customers' reservoirs
- Downhole flow & temperature/pressure conditions simulating services to assist in predicting hydrostatic pressures & flow requirements
- Flowline or transmission pipeline flow dynamics simulating services to assist in predicting flow regimes & corrosion events & locations
- Regional Technical Services support & expertise from strategic logistical locations
- Technical Services backup investigations for treating program upsets
- Provide customized cost effective, leading edge products and applications to meet the demands of our customers

### **Field Analytical Testing Services:**

- System fluid flow diagrams
- Systems surveys
- Root Cause Failure Analysis (RCFA)
- ICP allows for making informed decisions on chemical applications
- Waters analyses
- Millipore filter analyses
- Water depositions analyses (solids, bacteria, etc.)
- Scale deposits analysis
- Corrosion surveys
- PCC's state of art equipment ensures the correct solution - every time

## Laboratory-based Testing Services

- State of the art laboratory facility includes
  - X-Ray Diffractometer (XRD) - solids analysis
  - Inductively Coupled Plasma Spectrometer (ICP) - mineral analysis
  - Precision Mechanical Convection Incubator - bacteria cultures
  - HACH DR Spectrophotometer - residuals, OIW, Fe&Mn, turbidity
  - Orbital Platform Shaker - corrosion inhibitor qualification testing
- Simulation studies that replicate field conditions
- Chemical performance analysis
- Laboratory investigations for detailed troubleshooting of chemical applications
- Acid gas liquid chromatographic typical analysis
- Chemical residuals
- Oil Analysis
- Experienced laboratory staff with state of art equipment allows:  
Identifying RCFA + More samples/day + quicker turnaround
- Handles simple and complex materials  
The analysis of waters and oils with ICP technology ensures fewer potential future problems

## Value Creations Services

- Present successful documentation of comparable TCO case histories
- Reduces customer's capital expenditures through proven TCO programs
- Infield identification of continuous improvement opportunities through Analytical Monitoring Program (*AMP*)
- Assist customers' treating & service progress by conducting 360 surveys
- Assist customers' to recognize features & advantages of products & services
- Facilitate follow-up meetings to reviewing agreed upon performance metrics & benchmarks to insure satisfaction
- Establish communication systems through office calls, meetings, seminars, phone calls, emails, text messages, fax messages, direct mail and legible written reports & recommendations

- On time treating applications & services by adhering to best practices procedures

## TCO's

- The goal of TCO programs is to design & implement chemical programs, procedures, & processes that increase customers' production or facilitate lowering customers' lift costs to increases asset values.
- TCO's programs are recommended strategies that capture & quantify additional asset values generated by more effective chemical programs.
- Collect available customer data by performing technical audits to analyze current treating programs; (2) define (benchmark) production improvement opportunities & cost savings; (3) develop cost effective solutions & applications that meet system parameters; (4) implement improvements; (5) monitor improvements compared to benchmarks; (6) standardize procedures & processes into best practices.
- Perkin Elmer Optima 3000 DV ICP for metals analysis
- Shimadzu XRD-6000 X-Ray Diffractometer for crystalline state samples.
- Precision mechanical convection incubator for SRB & APB incubation.

## TCO's are:

- Corrosion failure reduction
- Scale inhibition
- Paraffin/Asphaltine control
- Microbiological control
- Water quality
- Oil dehydration
- Fe control
- Fuel savings
- Encapsulated SI vs. traditional squeeze method
- Encapsulated CI vs. traditional inhibition methods
- Salt removal/inhibition
- Stimulation fluids

**Texaco PB captured \$21,000,000 in five years of documented TCO's**

**'Production Enhancement Savings** - Savings resulting from chemicals that enable increased production recovery or savings either from production that was not 'lost' or 'deferred' when a failed well or facility was shut-in.

**Direct Chemical Invoice Savings** - Cost reductions resulting from better optimization and more effective chemicals, but not due to any associated chemical requirements arising from a natural decrease in production.

**Indirect Chemical Influenced Materials & Services Savings** - Cost reduction resulting from M&S savings influenced by more effective chemicals programs.

**Cost Avoidance Saving** - 'Soft' dollar savings from failure avoidance due to corrosion mitigation.

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*(Specialty Chemicals Division)*

**Drilling, Fracturing, SWD's, Pipelines, Pipe Yards, Trucking Co's, Pipe Yards & Refiners).**

- Corrosion Control
- Bacteria Control
- Water Clarifiers
- Foaming Agents
- De-foamers
- Antifoulants
- Acid Soaps
- KCL
- KCL Substitutes (Clay Stabilizer)
- Combination Inhibitors
- Packer Fluids
- Surfactants
- De-Emulsifiers
- Oxygen Scavengers
- H2S Scavengers
- CO2 scavengers
- Degreasers
- Pipe-on-pipe brine lube
- Rig Washes
- Cleaners
- Solvents (Aromatic/Aliphatic)
- Micell Solvent (Acid Booster)
- Methanol
- Xylene
- Jells
- Drag reducers
- Viscosity improvers
- Friction Reducers

- Mud Sweeteners
- De-salters
- Scale Control
- Paraffin Control
- Iron Control

## Dry Chemistries

- DC-WT Water Treatment-Bacteria
- DC-229 Scale Inhibitor
- DC-300 Corrosion Inhibitor
- DC-510 Paraffin Inhibitor
- DC-2001 Emulsion Breaker
- DC 1 H<sub>2</sub>S Scavenger
- DC 200 Corrosion/Scale Inhibitor

