

PRODUCT LIST – OIL FIELD CHEMICALS

PRODUCT NAME	DESCRIPTION	FUNCTION
WEIGHTING MATERIALS		
BARITE	Barite BaSO ₄ , meets API specifications 13A section 7	Universally used as weighting agent.
	Barite BaSO ₄ , meets API specifications 13A section 20	Universally used as weighting agent.
	Barite BaSO ₄ , SG-4.0	Universally used as weighting agent.
HEMATITE	Hematite, meets API specifications 13A section 8	Used as a weighting agent.
CALCIUM CARBONATE	Ground marble (calcium carbonate)	High purity ground marble, used as a bridging & weighting agent in drilling, work over & completion fluids. It is generally more pure with high hardness & provides better acid solubility. Available in different microns size.
	Ground Limestone (calcium carbonate)	Ground Limestone based Calcium carbonate used to increase the density of the drilling fluids & serve as LCM & Bridging agent. It can be used in both water based & Oil based drilling fluids. Available in various particle sizes.
FILTRATION CONTROL AGENTS		
HT LIGNITE	Resin modified Lignite	High temperature Fluid loss control & rheology modifier for all water based fluids.
PMC	Preserved modified starch, Pregelatinized Starch	Non fermenting starch for Fluid loss control & rheology stabilizer in fresh water & saturated salt water mud.
	Preserved modified starch, Pregelatinized Starch	High temperature stable, Non fermenting starch for Fluid loss control & rheology stabilizer in fresh water & saturated salt water mud.
CMS	Modified Natural Polymer, Carboxy methyl starch	Fluid loss controller in most water base drilling & drill-in fluids at high temperature environment, does not significantly increase viscosity. Can be used to encapsulate drill cuttings & exposed wellbore formations to reduce particle dispersion & reactive clay/shale formation swelling. It does not require a biocide to prevent fermentation.
NON IONIC CROSS LINKED STARCH	Nonionic, cross-linked Starch for HTHP applications	A special starch derivative to reduce HTHP filtrate loss for all water based muds including drilling, completion & work over. It is nonionic in nature suitable for muds containing salts or ion sensitive additives. Acts synergic ally with Xanthan gum polymer to increase LSRV. It can be used in most brines including seawater, NaCl, KCl, CaCl ₂ , NaBr and formate salt systems.
POLYACCHARIDE FC	Polysaccharide derivative to control filtration in Mixed Metal Oxide system	PAL-FC fluid-loss-control agent is a polysaccharide derivative used to control filtration in Mixed-Metal Oxide system. It will not destroy the low-end rheology of the Mixed Metal Oxide system. It is effective in seawater fluids, but all hardness should be treated out before the product is added. It is resistant to bacterial degradation. It can be used in any other type of fluid where starch & cellulose additives are permitted.

PRODUCT NAME	DESCRIPTION	FUNCTION
CMC – LV	Sodium Carboxy methyl cellulose Low viscosity	Technical grade Low viscosity, Fluid loss additive used in fresh water & sea water muds. It is used in high viscosity, high solids or heavily weighted fluids & produces only slight increase in viscosity.
CMC-HV	Sodium Carboxy methyl cellulose High viscosity	Technical grade High viscosity, Fluid loss additive used in fresh water & sea water muds. It is used in Low viscosity or low solids fluids & increase viscosity in addition to controlling fluid loss.
PAC-LV	Polyanionic cellulose-Low viscosity	Low viscosity grade fluid loss control polymer with minimal viscosity increase. It will perform well in all brine applications, especially saltwater-base fluids. It can be used at all densities in either dispersed or non-dispersed systems. It will encapsulate solids to control dispersion of active shale.
PAC= SLV	Polyanionic cellulose-Super Low viscosity	Super low-viscosity PAC is used primarily as a fluid-loss reducer. It is a high performance product, readily dispersible in water-base drilling fluids ranging from fresh to saturated salt water. PAL PAC-SLV polymer is primarily used in weighted systems to avoid an uncontrollable viscosity build-up.
PAC-RVG	Polyanionic cellulose Regular Viscosity grade	Regular grade viscosity PAC useful in controlling fluid loss & increasing rheology in all types of water. It will aid in dispersion control by attaching & encapsulating the dispersion solid. It may be used in all density ranges and functions effectively in dispersed & non dispersed system.
PAC LV PREMIUM	High-quality polyanionic cellulose Low viscosity	High quality, -low viscosity grade fluid-loss-control polymer. It is designed for situations where filtration control is needed with only minimal increases in rheology. It performs well in all brine applications, especially saltwater-base fluids. Can be used at all densities in either dispersed or non-dispersed systems. Functions at all pH range. Temperature stability is up to 300° F.
PAC RVG PREMIUM	High-quality polyanionic cellulose Regular viscosity	Filtration control agent is used in most water-based drilling fluids, can provide secondary viscosity and is effective even at low concentrations. It is suitable for use in fresh water, salt water and brine-based fluids & stable to 300°F (149°C). Effective in moderate to high pH systems.
SFC-HTHS	Synthetic polymer High temperature/High salinity Fluid loss controller	PAL SFC-HTHS a synthetic polymer specifically designed for high-temperature and /or high-salinity environments. Works well at any salinity. Reduces differential sticking tendencies. Temperature stable upto 475°F (246°C). Calcium tolerance in excess of 100,000 ppm.

PRODUCT NAME	DESCRIPTION	FUNCTION
VISCOSIFIERS		
GEL	Sodium Bentonite, meets API specifications 13A section 9	Premium-grade sodium montmorillonite clay, used as primary filter-cake building, filtration-control and suspension agent in water-base mud systems.
GEL SUPREME	Non treated Bentonite, meets API specifications 13A section 10	Chemically untreated, premium-grade sodium montmorillonite clay, used as primary filter-cake building, filtration-control and suspension agent in water-base mud systems.
GUAR GUM	Gaur Gum, Viscosity & Fluid loss control in low solids mud	Rapid mixing high viscosity polymer for use in freshwater and seawater spud muds.
XANTHAN – RG	Primary viscosifying polymer. Xanthan Gum	High molecular weight linear polysaccharide, used to increase viscosity for cutting transport and weight-material suspension for all water-base mud. Provides better rheological profile with elevated low-shear-rate viscosity and highly shear-thinning characteristics.
XANTHAN - D	Primary viscosifying polymer. Highly dispersible bio polymer.	Highly dispersible, high molecular weight linear polysaccharide, used to increase viscosity for cutting
	Xanthan Gum	transport and weight-material suspension for all water-base mud. Provides better rheological profile with elevated low-shear-rate viscosity and highly shear-thinning characteristics.
XANTHAN D L	Liquefied xanthan gum, non-clarified	High purity Xanthan Gum biopolymer, suspended in an ultra-clean mineral oil or Glycol used in most types of water-based fluids for rheology modification, improved hole cleaning and solids suspension.
CLAY	Attapulgite clay, meets API specifications 13A section 12	Premium Attapulgite clay, used to provide viscosity and hole cleaning capabilities in drilling fluids with high concentrations of salts.
HEC	Hydroxy Ethyl Cellulose polymer	Multi-purpose viscosifying agent for use in freshwater, sea-water and complex brine systems, its viscosifying characteristics are unaffected by common contaminants & dissolved salts.
LOST-CIRCULATION MATERIALS		
LOSS PLUS	Micronized Cellulose fiber	Bridging and sealing permeable formations in water/oil/synthetic base fluids. It is particularly useful for preventing differentially pipe when drilling depleted zones where high differential pressures exist. Available in Fine, Medium & coarse grades.
MICA	Sized grade of Mica	Flake LCM for seepage losses and prevention. It is used for preventing or curing formation losses while drilling fractured or porous zones. Available in Fine, Medium & coarse grades.
PLUG	Wall nut shells	Granular Lost circulation material.

PRODUCT NAME	DESCRIPTION	FUNCTION
BRIDGE	Granular Graphite	Chemically inert and thermally stable, effective bridging and sealing agent used in water, oil or synthetic based drilling fluid. Can lower the potential for stuck pipe, control lost circulation and reduce torque and drag.
BRIDGE PLUS	Granular Graphite/ Coke blend	Chemically inert, sized plugging agent used to bridge and seal porous and fractured formations in water, oil or synthetic based drilling fluid. Can lower the potential for stuck pipe, control seepage, partial and severe lost circulation and reduce torque and drag.
SEAL	Blend of fibrous, flaky & granular LCM	Mixture of selected non-abrasive granular, flake and fibrous material with a unique physical structure and an extensive range of particle size that enhances its bridging properties. It very effective to combat severe lost circulation for water base mud. Will function at all temperatures.
Nut Shells	Granular Nut shells	Granular Lost circulation material, inert additive, compatible in all types and densities of fluids.

THINNERS AND DISPERSANTS

PTS	Polymeric temperature stabilizer	Polymeric alkaline material, improves the temperature stability of polymer fluid by a margin of 70°F (39°C) by effectively reducing the degradation of polymers at higher thermal condition.
TEMP	Resinated lignite complex	Most effective HTHP filtration control additive provides rheological stability over a wide range of temperatures, suitable for use in freshwater, seawater & brackish water.
LIG	Ground lignite	Effectively reduce fluid loss in high temperature application and deflocculate water-base muds. Provides thin, low-permeability filter cakes, performs exceptionally well in dispersed systems as a synergistic additive with lignosulfonates.
CAUSLIG	Caustilized lignite	Controls rheology and reduce fluid loss for higher temperature muds, emulsifies oil, reduces flocculation and stabilizes water-base drilling fluids.
CHROLIG	Chrome lignite, sodium hydroxide, neutralized	High-temperature thinner, excellent additive for HTHP filtration control and rheological stabilization for muds subjected to high temperatures.
LIGNO C	Ferrochrome lignosulfonate, Chrome lignosulfonate	Multi-purpose deflocculant and gel-strength reducer, temperature stabilizer and filtration-control additive for use in all water-base systems. Exhibits superior deflocculating ability, even in the presence of contaminants and elevated temperatures.
LIGNO CF	Chrome-free lignosulfonate, Environmentally acceptable thinner	Environmentally acceptable deflocculant and fluid loss additive in all types of water-base systems. Exhibits superior deflocculating ability, even in the presence of contaminants and elevated temperatures.

PRODUCT NAME	DESCRIPTION	FUNCTION
SHALE INHIBITORS AND FLOCCULANTS		
GLY GP	Broad-cloud-point, general-purpose polyglycol for low-salinity fluids and low temperatures	Improves shale stability, lubricity and high-temperature filtration control in freshwater to seawater polyglycol systems.
GLY HC	Polyglycol for high-salinity fluids and high temperatures	Improves wellbore stability, lubricity, high-temperature filtration control in fresh-to-high salinity and can be used in wells with high formation temperatures.
GLY LC	Low-cloud-point polyglycol for low-salinity fluids and low temperatures	Improves wellbore stability, lubricity, high-temperature filtration control in fresh-to-medium salinity and can be used in wells with low formation temperatures.
GLY MC	Medium-cloud-point polyglycol for moderate-salinity fluids and high temperatures	Improves wellbore stability, lubricity, high-temperature filtration control in fresh-to-medium salinity and can be used in wells with moderate formation temperatures.
SIL N 2.7	Liquid sodium-silicate	Provides superior chemical inhibition to reactive shales, clay and claystone formations, chalk, and formations interbedded with dispersive clays. Secondary inhibition is achieved with the use of KCl or NaCl.
SIL K	Potassium Silicate	Provides superior chemical inhibition to reactive shales, clay and claystone formations, chalk, and formations interbedded with dispersive clays. It does not require additional salt to enhance inhibition, used in environmentally sensitive areas, where chlorides are prohibited from being discharged.
PHPA	Dry PHPA polymer	Encapsulating polymer for freshwater and saltwater mud.
PHPA L	Liquid PHPA	Provide cuttings encapsulation and-dispersion clay inhibition in fresh and saltwater drilling fluids.
PHPA RD	Readily dispersible PHPA powder	Provide cuttings encapsulation and shale stabilization in freshwater to saltwater drilling fluids ranging from low solids to weighted mud.
TROL	Sulfonated asphalt	Water dispersible shale inhibitor, aids in stabilizing shale sections, controlling solids dispersion and improving wall cake characteristics.
TROL-S	Sulfonated asphalt Supreme	Water dispersible shale inhibitor, aids in stabilizing shale sections, controlling solids dispersion and improving wall cake characteristics. Provide high-temperature fluid-loss control for water-base drilling fluid.
HS	Poly amino acid hydration suppressant	Water soluble hydration suppressant, environmentally acceptable, organic compound designed to reduce the dispersion & swelling of reactive clay formation & minimizes the potential for bit balling.

PRODUCT NAME	DESCRIPTION	FUNCTION
BIOCIDES AND SCAVENGERS		
BIO T	Biocide Triazine base, Available in 50% & 78% active content	Prevent bacterial growth in water base muds and low-salinity clear brine fluids. Effective H ₂ S scavenger.
BIO A	Biocide Amine base, Quaternary Ammonium compounds	Prevent bacterial degradation of drilling mud.
BIO G	Biocide Glutaraldehyde base	Prevent bacterial degradation. It is de-activated by ammonia, primary amines and oxygen scavengers.
SCAV HS	Organic H ₂ S scavenger, Triazine base	Provides solid free H ₂ S scrubbing for brine based drilling fluid in neutral-high pH conditions.
OXAL HS	H ₂ S scavenger Glyoxal base	Displays a continuous H ₂ S scavenging activity over longer time period. Exhibits good temperature stability upto 150°C and intended for use in low pH conditions.
OS	BiSulfite-base oxygen scavenger	Removes dissolved oxygen from drilling and completion fluids, eliminating a potential source of corrosion. Suitable for use in freshwater and monovalent brines, incompatible with Glutaraldehyde base biocide.
OS-P	Sulfite-based oxygen scavenger powder	Removes dissolved oxygen from drilling and completion fluids, eliminating a potential source of corrosion. Improves thermal stability of polymers by a margin of 20°F (11.1°C). Suitable for use in freshwater and monovalent brines.
ERYT OS	Sodium Erythorbate base oxygen scavenger	Non-sulphite oxygen scavenger suitable for mono valent and divalent brines.
ZNO	ZINC OXIDE material reacts with sulfides to form ZnS	Efficient H ₂ S scavenger, Zinc oxide reacts with sulfides to form ZnS precipitate, which is an insoluble, inert, fine solid remain harmlessly in the drilling fluid and removed through the solids-control equipment.
DEFOAMERS AND FOAMERS		
DEF A	Alcohol-based defoamer	Higher esters based product to control foaming in all water-based drilling fluids as well as brine-based completion and workover fluids.
DEF S	Silicone-based defoamer	Silicon based defoamer to prevent foaming in drilling fluids as well as solids free workover and completion fluids. Highly effective in low concentration at a wide range of pH.
DEF OL	Polyether Poyol based defoamer	Low-toxicity blend of defoaming agents to control foaming in freshwater muds, seawater muds and all brine systems. Compatible with all common mud additives and effective in low concentration.
FA-P	Foaming Agent Powder	Biodegradable surfactants that can be added to fresh, brine, or brackish water for air/foam, air/gel-foam, or mist drilling applications.
FA-L	Foaming Agent Liquid	Biodegradable surfactants that can be added to fresh, brine, or brackish water for air/foam, air/gel-foam, or mist drilling applications.

PRODUCT NAME	DESCRIPTION	FUNCTION
SURFACTANTS AND SPOTTING FLUIDS		
PAL DD TECH	Surface tension reducer to prevent balling, drop sand & emulsify oil	Aqueous blend of surface-active agents can be used in any water base drilling fluid to reduce surface tension, reduce the sticking tendency of water-sensitive shale cuttings, minimize bit & BHA balling and reduce torque and drag.
PIPE NW	Stuck pipe liberator, Unweighted	Effective additive to free the differentially stuck pipe in a shorter period of time, by cracking and penetrating the filter cake.
PIPE W	Weightable stuck pipe liberator, Liquid One-drum spotting Fluid	Single pack liquid blend, easy to mix and quickly prepare weighted oil base spotting fluid to free differentially stuck pipe. Dehydrates and cracks the filter cakes, allowing the spotting fluid to penetrate between drillstring and formation, wets & lubricates the drillstring and reduces the force required to free stuck pipe.
PIPE ENV	Environmentally acceptable Low Toxicity Stuck pipe Liberator/Spotting fluid	Low-toxicity spotting fluid used for environmental sensitive offshore and onshore wells, to free differentially stuck pipe by penetrating between the wall and drillstring, reduces torque & drag and provides metal wetting characteristics.
BLACK SPOT	Powder Spotting fluid, Stuck pipe liberator, sack concentrate	One sack powder blend, easy to handle and store at rig sites, effective additive for freeing differentially stuck pipe, can be mixed with diesel oil, mineral oil or synthetic fluids and weighted to the desired density before spotting.
OIL BASE MUD PRODUCTS		
MUL P	Primary Emulsifier & wetting agent	Provides excellent emulsion stability, secondary wetting, filtration control and contamination-resistance of oil mud systems.
MUL S	Secondary Emulsifier	Multi-functional additive serves as secondary emulsifier, wetting agent and filtration control agent in oil mud systems.
MUL NT	Non TOFA base multipurpose Emulsifier	High temperature stable invert emulsions, secondary wetting, reduce HPHT filtration, improves thermal stability and resistance to contamination in oil mud systems.
MUL P-HT	Highly concentrated high temperature stable Primary Emulsifier	Provides excellent emulsion stability, secondary wetting, HTHP filtration control, high temperature stability and contamination-resistance of oil mud systems.
MUL S-HT	Highly concentrated high temperature stable Secondary Emulsifier	Multi-functional additive serves as secondary emulsifier, wetting agent and HTHP filtration control agent with improved thermal stability in oil mud systems.
WET	Oil wetting agent for improving Oil wetting of solids & emulsion Stability	Powerful oil wetting product used to oil wet drill solids and weighting agents in oil-based drilling fluids.
THIN	Oil mud Thinner for reducing the viscosity & gel strength	Reduces viscosity and gel strengths in oil base mud caused by high content of colloidal solids, without the need for changing the Oil/Water Ratio.

PRODUCT NAME	DESCRIPTION	FUNCTION
MOD	Rheological modifier to increase LSRV, yield point, gel strength & carrying capacity	Enhance LSRV and gel strength for improved cutting-carrying capacity in large-diameter, high-angle, horizontal and extended-reach wells. Improves shear thinning, thixotropic characteristics without using additional clay-base additive and reduce fluid loss in Oil base muds.
VIS OBM	Polymeric viscosifier for increasing yield point & gel strengths with minimal plastic Viscosity	Provides elevated yield point and gel strength with minimal increase in plastic viscosity thereby minimize the amount of clay in formulation and improves LSRV to increase shear thinning, thixotropic characteristics oil base mud.
ORGANOCLAY	Organophilic clay, Viscosifier and gelling agent	Impart viscosity and suspension properties to oil base drilling fluids, for improving cutting-carrying capacity and to provide long-term suspension of weighting agents.
ORGANOLIG	Amine-treated lignite, HT filtration control Additive	High temperature filtration control agent, act synergistically with emulsifiers in conventional invert emulsion systems to enhance the overall emulsion and thermal stability.
PHALT	Asphaltic resin, Filtration control Additive	Provides filtration control, seal low-pressure and depleted formations, also improves overall emulsion stability, thermal stability and suspension characteristics of oil base mud.
PHALT HT	Blend of Lignite & Asphaltic resin for HTHP filtration control	Provides HTHP filtration control, seal low-pressure and depleted formations, also improves overall emulsion stability, thermal stability and suspension characteristics of oil base mud.

CORROSION AND SCALE INHIBITORS

COR FILM-W	Water soluble Film forming amine corrosion inhibitor used for drilling	Provides excellent corrosion inhibition from Oxygen, Carbon Dioxide and Hydrogen Sulphide gases during drilling, for the downhole tubular and associated surface equipment's upto 300°F. Compatible with all types of water base mud.
COR FILM-O	Film forming amine corrosion inhibitor used for drilling, Oil soluble & water dispersible	It effectively protects the drillstring by forming a tough persistent film on metal surfaces. It is compatible with all types of water base muds both weighted & unweighted. It is most applicable in the presence of carbon dioxide or hydrogen sulfide gases. Effective up to 350°F.
COR ALL 40	General-use, all-purpose water soluble organo phosphorus-base inhibitor	Highly effective passivating type inhibitor for reducing oxygen corrosion in aerated muds, low-solids, non-dispersed, polymer muds and potassium muds with minimal effect on fluid rheology. Effective up to 350°F.
COR ALL 50	General-use, all-purpose water soluble Potassium salt-base inhibitor	Highly effective passivating type inhibitor for reducing oxygen corrosion in aerated muds, low-solids, non-dispersed, polymer muds and potassium muds with minimal effect on fluid rheology. Effective up to 350°F.
SCALE P	Phosphonate base Scale Inhibitor, inhibits scaling caused by calcium carbonate, calcium sulfate and barium sulfate	Inhibits deposition of mineral scales such as calcium carbonate, calcium sulfate and barium sulfate on downhole tubulars and associated surface equipment in clear brine completion fluid systems.

PRODUCT NAME	DESCRIPTION	FUNCTION
COR BRINE 20	Amine corrosion inhibitor (15-20%) for clear completion/Packer brines	It controls corrosion of tubing & casing strings when used in workover & packer brines including sodium chloride, calcium chloride, sodium bromide, calcium bromide & zinc bromide. Provide protection at bottomhole temperature upto 300°F.
COR BRINE 30	Amine corrosion inhibitor (30-35%) for clear completion/Packer brines	It controls corrosion of tubing & casing strings when used in workover & packer brines including sodium chloride, calcium chloride, sodium bromide, calcium bromide & zinc bromide. Provide protection at bottomhole temperature upto 350°F.

WORKOVER, COMPLETION AND DRILL IN PRODUCTS

PAL HEC	Hydroxyl Ethyl Cellulose	Viscosifier in brine workover, completion fluids and water-base mud.
PAL HEC L	Liquid Hydroxyl Ethyl Cellulose	Liquid viscosifier for single-salt brines.
PAL DRIL IN	Modified Starch derivative, cross linked Non-Ionic	Non-ionic, starch derivative intended to reduce HTHP filtrate loss in all water based mud containing salts or ion sensitive additives for drilling, completion & work over application. Acts synergically with Xanthan gum polymer to increase LSRV. Can be used in most brines including seawater, NaCl, KCl, CaCl ₂ , NaBr & formate salt systems.
PAL XAN PLUS	Premium grade clarified Xanthan gum	Highly dispersible, premium grade, Xanthan gum used to provide superior hole cleaning and suspension, minimize filtrate invasion to formation and reduces torque and drag in reservoir drill in fluids. Provides better rheological profile with elevated low-shear-rate viscosity and highly shear-thinning characteristics.
SODIUM BROMIDE	Sodium Bromide	Used to eliminate potential of formation damage from the precipitation of carbonate, bicarbonate or sulfate compounds associated with using calcium-base brines where formation waters contain high concentrations of bicarbonate and sulfate ions.
PAC R PREMIUM	High-quality polyanionic cellulose Regular viscosity	Filtration control agent is used in most water-based drilling fluids, can provide secondary viscosity and is effective even at low concentrations. It is suitable for use in fresh water, salt water and brine-based fluids & stable to 300°F (149°C). Effective in moderate to high pH systems.
BROM Ca	Calcium Bromide Liquid, used for mixing high density, solids free completion brines	Used to formulate clear-brine workover and completion fluid with densities ranging from 8.4 to 15.3 lb/gal. Inhibits hydration and migration of swelling clays.
COR BRINE 20	Amine corrosion inhibitor (15-20%) for clear completion/Packer brines	It controls corrosion of tubing & casing strings when used in workover & packer brines including sodium chloride, calcium chloride, sodium bromide, calcium bromide & zinc bromide. Provide protection at bottomhole temperature upto 300 F.

PRODUCT NAME	DESCRIPTION	FUNCTION
COR BRINE 30	Amine corrosion inhibitor (30-35%) for clear completion/ Packer brines	It controls corrosion of tubing & casing strings when used in workover & packer brines including sodium chloride, calcium chloride, sodium bromide, calcium bromide & zinc bromide. Provide protection at bottomhole temperature upto 350 F.
CARB-F	Calcium Carbonate Flakes	Acid-soluble bridging and weighting agent for controlling fluid loss and density. Available in Fine, Medium & coarse grades.
CARB-M	Ground marble (calcium carbonate)	High purity ground marble, used as a bridging & weighting agent in drilling, work over & completion fluids. It is generally more pure with high hardness & provides better acid solubility. Available in different microns size.
LUBE SAFE	Water soluble brine lubricant	Provides exceptional reduction in metal-to-metal friction when added to seawater, sodium chloride, sodium bromide, calcium chloride and calcium bromide completion fluids. Reduce torque and drag in high-angle, extended-reach wells.
CLEAN-UP	Mud cake clean up solvent	Multi-functional surfactant additive, serves as a wetting agent, a demulsifier and an interfacial tension reducer. Soluble in oil, acid, and water to penetrate deep in the formation to dissolve oil films on fines leaving them water-wet thereby preventing particle plugging and minimizing loss of permeability.
FORM K	Potassium Formate brine	Used to formulate clear-brine workover and completion fluid with densities ranging from 8.4 to 13.1 lb/ gal. Inhibits hydration and migration of swelling clays.

Opportunities...