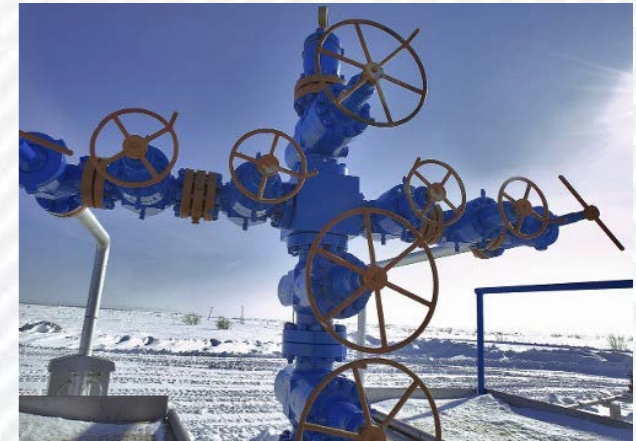




# DRILLING FLUIDS SOLUTIONS & WASTE MANAGEMENT

SERVICE CENTER SBM LLC



# SBM EXPERIENCE

## DRILLING FLUID SOLUTIONS

MORE THAN

1200

WELLS

## CEMENTING SOLUTIONS

MORE THAN

4585

OPERATIONS

## WASTE MANAGEMENT SOLUTIONS

MORE THAN

1 million m<sup>3</sup>

DEACTIVATION OF WASTE

## TROUBLESHOOTING SOLUTIONS

MORE THAN

180

OPERATIONS

## REMEDIAL CEMENTING, SQUEEZE JOBS

MORE THAN

100

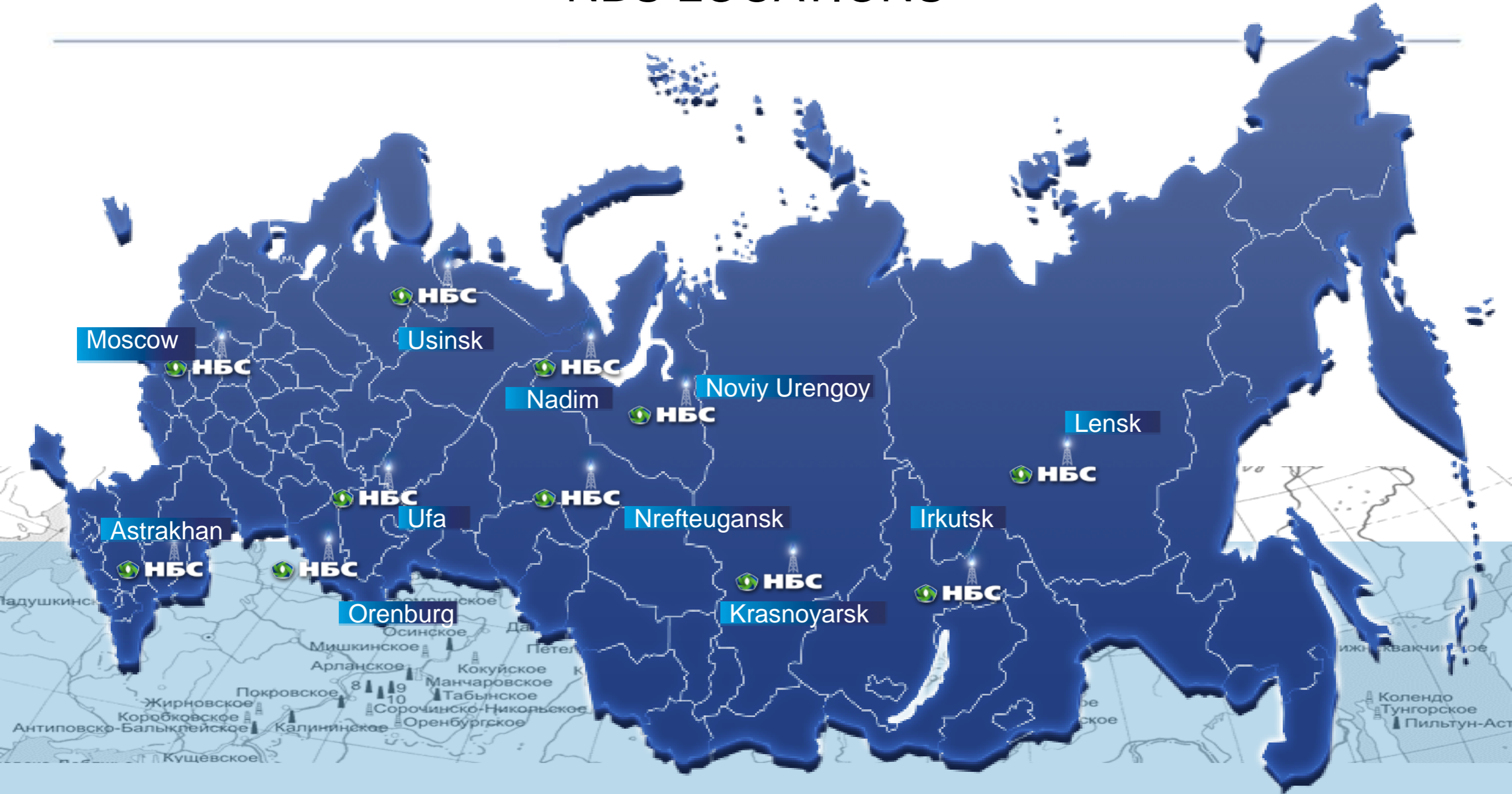
SUCCESSFUL OPERATIONS

объектов


We optimize drilling efficiency and economic features through professional services



# NBS LOCATIONS



# Quality Management System



СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р  
РЕГИСТР СИСТЕМ КАЧЕСТВА  
ОРГАН ПО СЕРТИФИКАЦИИ СИСТЕМ МЕНЕДЖМЕНТА КАЧЕСТВА  
«СТАНДАРТ-ТЕСТ»  
Россия, 109382, г. Москва, улица Нижние поля, дом 9. Тел. 8 (965) 390-36-01  
№ РОСС RU.0001.13ИФ47

К № 14622

**СЕРТИФИКАТ СООТВЕТСТВИЯ**  
Выпуск 1. СМК сертифицирована с сентября 2014 г.  
Выдан Обществу с ограниченной ответственностью  
«Сервисный Центр СБМ»  
Российская Федерация, 119334, г. Москва, ул. Вавилова, д. 5, корп. 3


**НАСТОЯЩИЙ СЕРТИФИКАТ УДОСТОВЕРЯЕТ:**  
интегрированная система менеджмента применительно к оказанию сервисных услуг в области буровых и цементных растворов, промывочных жидкостей при строительстве, бурении, креплении и испытании скважин всех видов и назначений; обращению с отходами 1-5 класса опасности (сбор, транспортировка, использование, обезвреживание, размещение)

**СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ**  
ГОСТ ISO 9001-2011 (ISO 9001:2008), ГОСТ Р ИСО 14001-2007 (ИСО 14001:2004)

Регистрационный № РОСС RU.ИФ47.К00054

Дата регистрации 17.09.2014 г. Срок действия до 17.09.2017 г.

Руководитель органа по сертификации систем менеджмента качества Т.Р. Погребная  
Председатель комиссии Д.А. Куликова



In Service Center SMB implemented and operated Quality Management System, meets the requirements:

1. ГОСТ ISO 9001-2011 (ISO 9001:2008)  
«Quality Management System. Requirements»
1. ГОСТ Р ISO 14001-2007 (ISO 14001:2004)  
«Environment Management System. Requirements and application guide»

Registration number : РОСС RU.ИФ47.К00054

Valid up to 17.09.2017

Учетный номер Регистра систем качества № 22936

© опцион

## DRILLING FLUIDS SOLUTIONS

### ✓ WATER BASED

- ✓ POLYFLOCK - Non-dispersed, low-solids system
- ✓ POLYGLYCOL - system is a water-based drilling fluid designed to provide maximum shale stabilization in highly reactive clays
- ✓ POLYGLYCOL KCL/NaCL - drilling fluids are cost effective, salt-water based shale inhibiting fluids that can be used in a multitude of environments

### ✓ INVERT EMULSION

- ✓ POLYEMULSAN - Invert Emulsion Fluid System has a rheological profile designed to provide low, controlled Equivalent Circulating Density in wells with narrow pore pressure/fracture pressure gradients, reducing the risk of drilling induced fractures
- ✓ POLYECONOL - high-performance invert emulsion fluid system provides operators a salt-free, organophilic clay-free fluid system to help improve drilling performance and reduce overall AFE in technically challenging wells and locations with strict environmental regulations

### ✓ OPERATIONAL SERVICES:

- ✓ FLUID OPTIMISATION
- ✓ SOFTWARE
- ✓ LABORATORY AND TECHNICAL SUPPORT
- ✓ PM&L



## WATER BASED

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**POLYFLOCK** - High-Performance Fresh-Water Fluid drilling system demonstrates exceptional performance under the most extreme conditions, including high differential pressures, acid gas, wet cement, temperatures up to 375°F and densities up to 17.5 ppg. The POLYFLOCK system is simple to manage and can be implemented successfully using only conventional rig solids control equipment. The cost-effective system helps lower overall drilling cost per foot compared to conventional dispersed or diesel-based systems. The POLYFLOCK system is maintained without the need for dispersants and caustic materials. Overall, the system is run with very few chemical additives, thus reducing the number of lifts per job. The proprietary blend of polymers makes the system easier to engineer and helps assure the same quality from job to job.

**POLYGLYCOL** water-based drilling fluid system provides maximum shale stabilization in highly reactive clays. Engineered for reliable inhibition and maximum drilling performance, this system can provide wellbore stability, high rates of penetration, and acceptable rheological properties over a wide range of temperatures. The system remains stable from 30°F through 300°F (-1°C through 148°C) up to 16.5 ppg, a first for a clay-free, low-solids, non-dispersed polymer drilling fluid system.

**POLYGLYCOL KCL/NaCL** drilling fluids are cost effective, salt-water based shale inhibiting fluids that can be used in a multitude of environments.

## INVERT EMULSION

### **POLYEMULSAN** - High-Performance Invert Emulsion Fluid System

- ✓ **Stable Wellbore Conditions** - Uncontrolled ECD can increase the possibility of drilling induced fracture, non-productive time and costs associated with fluid loss. POLYEMULSAN Invert Emulsion Fluid System has a rheological profile designed to provide low, controlled Equivalent Circulating Density in wells with narrow pore pressure/fracture pressure gradients, reducing the risk of drilling induced fractures.
- ✓ **Superior Hole Cleaning** - The fluids unique chemistry provides a low fluid viscosity and excellent suspension properties to effectively clean the wellbore and resist against any barite sag, while also reducing the risk of stuck pipe and pack off.
- ✓ **Access Reservoirs Previously Inaccessible** - As drilling conditions continue to become more challenging, POLYEMULSAN drilling fluid system is ideal for low pressure formations, including depleted zones, high angle drilling, and slim wellbores. Reservoirs that were once thought inaccessible due to technical or financial constraints can now be explored with SBM's innovative new fluid.

### **POLYECONOL** - High-Performance Invert Emulsion Fluid System

- ✓ **Benefits POLYEMULSAN**
- ✓ **Improve Drilling Performance** - fluid system has been engineered to provide tolerance to contaminants and excellent shale inhibition without the use of chlorides. The POLYECONOL system can be built from all available base fluids and fully customized for any well.
- ✓ **Meet or Exceed Environmental Regulations** - Engineered with a focus on well economics and environmental stewardship, the POLYECONOL system is designed to meet or exceed some of the industry's most stringent environmental regulations. Key components of the POLYECONOL fluid system are biodegradable and are not generally attributed to the impairment of plant growth or water quality.

## WASTE MANAGEMENT SOLUTIONS



### Thermal Processing Systems

The goal of any thermal desorption technology is to produce oil-free or ultra-low Total Petroleum Hydrocarbons (TPH) solids for disposal by distilling the oils from cuttings and recovering it to be reused as drilling fluid. SBM will select the most suitable technology and optimize it based on available footprint and capacity requirements.

**SBM offers base oil selections that combat thermal degradation and maximize base oil recovery.**

Efficient solutions help reduce waste treatment time, transportation and handling, and help alleviate logistics challenges. Our customized waste management solutions are designed to provide these efficiencies and help you reduce the overall cost of your well operations.

**Thermo mechanical Cuttings Cleaner (TCC)** unit is specially designed for the processing of oil contaminated drilling waste such as typical drill cuttings, slop-mud and spent drilling mud. Its mechanical action is applied directly to the drill cuttings via hammers that create friction which causes temperatures to rise above the boiling points of water and oil. Once these temperatures are reached, hydrocarbons are removed from the solids to an acceptable disposal limit (<1% oil on cuttings). The oil and water vapors that remain are then fed through the TCC condensing system and recovered in the form of recovered heavy oil, recovered light oil, and recovered water.

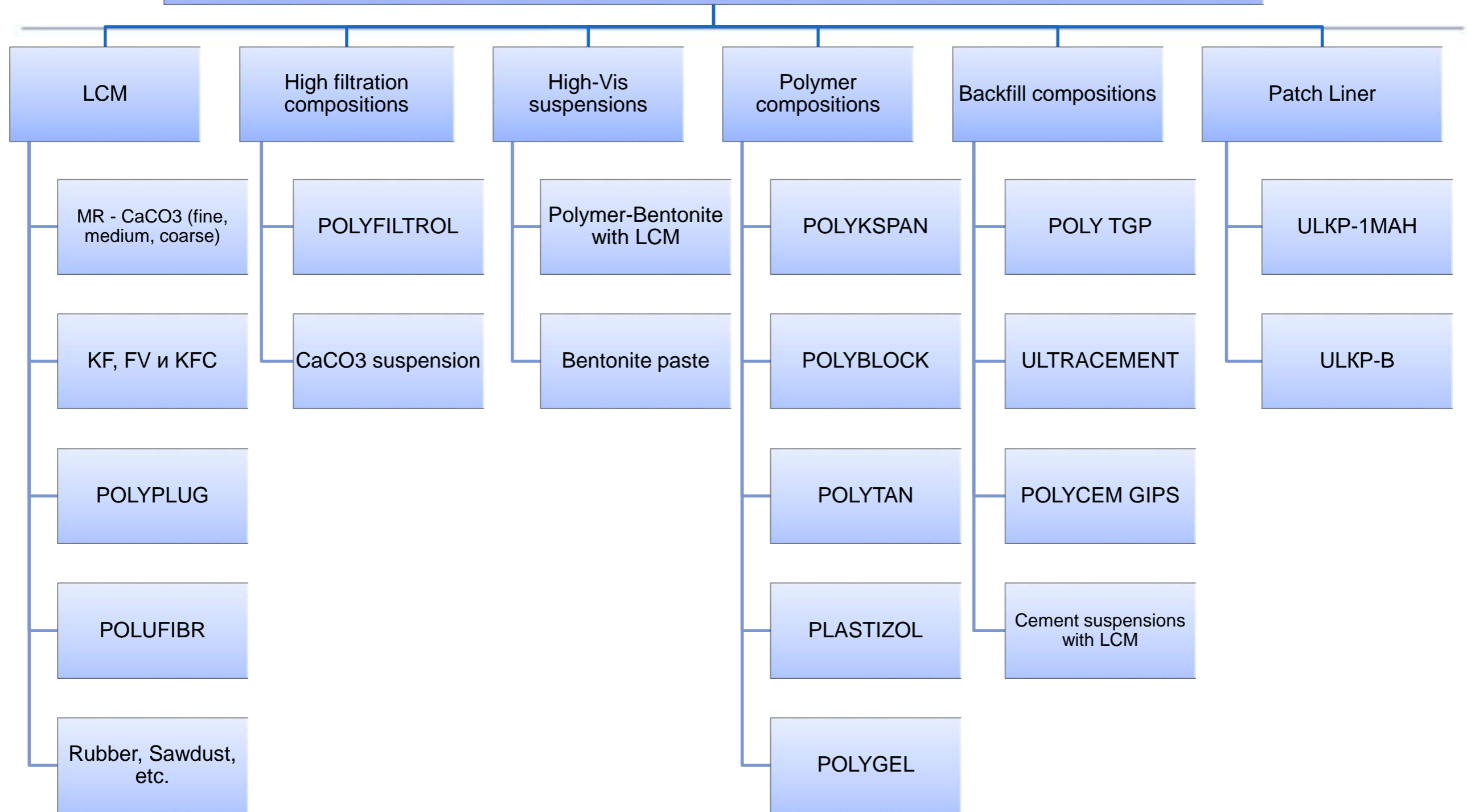




## Experience with high weight water based drilling fluids

Drilling fluid system	Mud weight, sg	Temperature
POLYGLYCOL	2,05-2,20	120°C
POLYGLYCOL NaCl	2,05-2,20	120°C
POLYEMULSAN	2,01	100 °C
POLYGLYCOL	2,35	205 °C

# LOST CIRCULATING MATERIAL



# LOST CIRCULATING MATERIAL



KF, KF-C



POLYPLUG



POLYFIBR



KF-R  
(acid solubility 99%)



POLYFILTROL



NUTSHELL



POLYPLUG-6A



RUBBER

At SBM, we customize every one of our solutions to ensure maximum results. Each custom solution requires the careful assembly of the right people, processes and technologies to deliver outstanding performance and most of all, superior service quality every time. Achieving this takes more than just the right fluid delivered at your wellsite by our field engineers; it requires the entire SBM organization working to support your operation.

# THANK YOU FOR ATTENTION

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