MBarrel
UAE Dubai Silicon Oasis

DEPROFORM LINE

Detergent Professional Formula

Strong Heritage – Proven Success

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Russian Academy of Sciences
Ural Branch
Institute of Technical Chemistry

1998 The task was set: to develop a Universal Chemical Agent for cleaning any hard surfaces from heavy oil contamination.

2006 Company was awarded **with "European Standard"** by Public Commission of the Council of Europe, for the use and implementation of new technologies in the field of environmental safety of industrial enterprises.

2000 The first prototype of a Universal Technical Detergent was created, and a program for product improvement and introduction into production was developed.

2001 production and first deliveries of Universal Technical Detergent were started, numerous trials were carried out and a product improvement program was proposed.

2006 – up to now mass production:

DPF_TD

Detergent Professional Formula (**DPF**)
General Description

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DeProForm line of Technical Detergent (DPF_TD) is a multi-purpose water-based dispergating degreaser and cleaner.
It is free of oxidizing agents, solvents, preservatives and enzymes.

DPF_TD is intended for cleaning and degreasing of metal surfaces and alloys, glass, ceramics, plastic, painted surfaces and other materials in various industries and sectors and for removing fatty, oily, resinous, hydrocarbon, paraffin and asphaltic-resinous deposits.

- **Easy-to-use & Environment Friendly;**
- **Low consumption** thanks to low rate dosing**;**
- **Possibility for regeneration of the working fluid;**
- **High-rate penetration and strong demulsifying effect;**
- **Cost-effective;**
- **Protection against static electricity;**
- **Ideal for preparing a surface for paint;**
- **Fire hazard is not required;**
- **No harm for surfaces and painting;**

Detergent Professional Formula
DEPROFORM LINE

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Example of abbreviation:

DPF_TD_P(L)_A

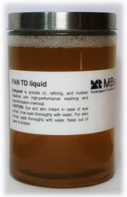
DPF	TD	P	A
1	2	3	4

1	DPF – name of product line
2	TD – technical detergent
3	P – powder L – liquid
4	A – alkaline

Delivery pack:

DPF_TD_P_A: powder, alkaline

Standard packaging:
bags 30 kg
big-bags 1 ton.



DPF_TD_L_A: liquid, alkaline

Standard packaging:
cans: 10, 20 liters,
barrels 180 liters

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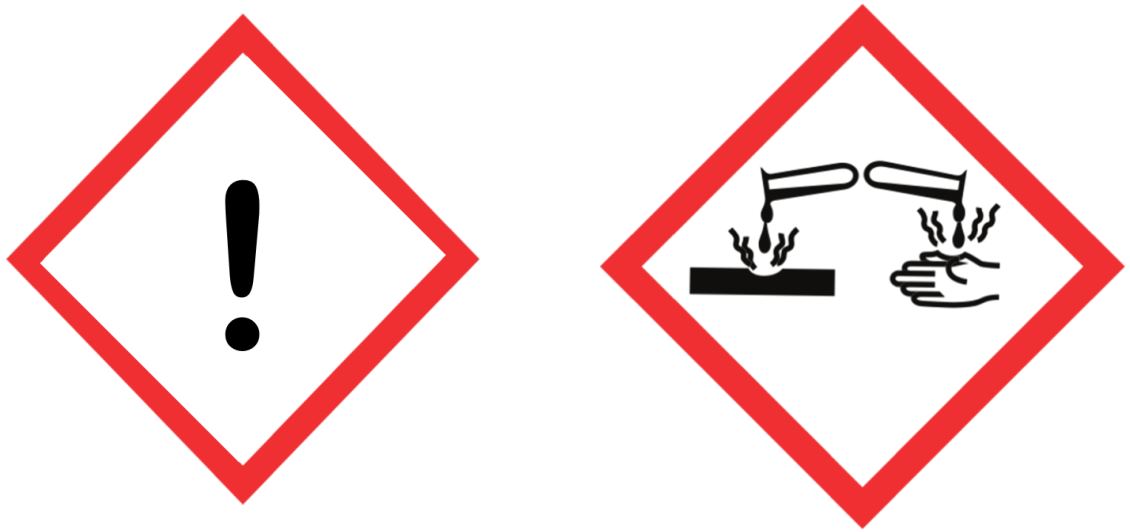
HSE REQUIREMENTS

Hazard identification:

CLP Régulations (EC) #1272/2008
Skin Cor. 1B; Skin Sens 1; STOT SE 3

Hazard statement
H314: Causes severe skin burns and aye damage.
H317: May cause an allergic skin reaction.
H335: May cause respiratory irritation.
Do not breath dusts or mists.
Wash hands thoroughly after handling.
Wear protective gloves, coverall, protective glasses.
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.
IF ON SKIN (hair): Take off all contaminated clothing. Rinse skin with water.
IF INHALED: Move person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes, remove contact lenses (if present), continue rinsing.
DPF_PAN_TD is better to use outdoor or in well ventilated area.
Avoid release to environment.

Label elements:



WHEN WORKING IT IS MANDATORY TO USE:
OVERALL, GLASSES, GLOVES, RESPIRATORS (MASKS)

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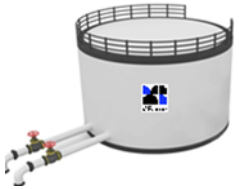
Treatment of Oil Wells by DPF_TD for removal of WAX from downhole pumping equipment without stop of oil production (restore Oil Well production or increase Downhole Equipment Run Life).



Treatment of oil tanks are cleaned by DPF_TD solution utilizing standard equipment. Cleaning is performed continuously, until desired results are obtained.

Treatment of marine vessels are cleaned with DPF_TD solution utilizing ship's standard equipment. DECK, ACCOMMONDATION, HULL, ENGINE ROOM, HOLDS, OIL SEPARATOR, PURIFIER, FUEL & OIL FILTERS, TANKS: HEAVY OIL, DIESEL, SLADGE.

Treatment of industrial facilities by DPF_TD chemical proved to be reliable, safe and easy-to-use process for removal of oil and wax from facility equipment, gears, floor, walls and etc.

Treatment of pipe lines by DPF_TD chemical proved to be reliable, cost effective and easy-to-use process for removal of heavy oil and wax depositions from pipe lines.

Oilfield Applications

Treatment to restore Well/Pump production

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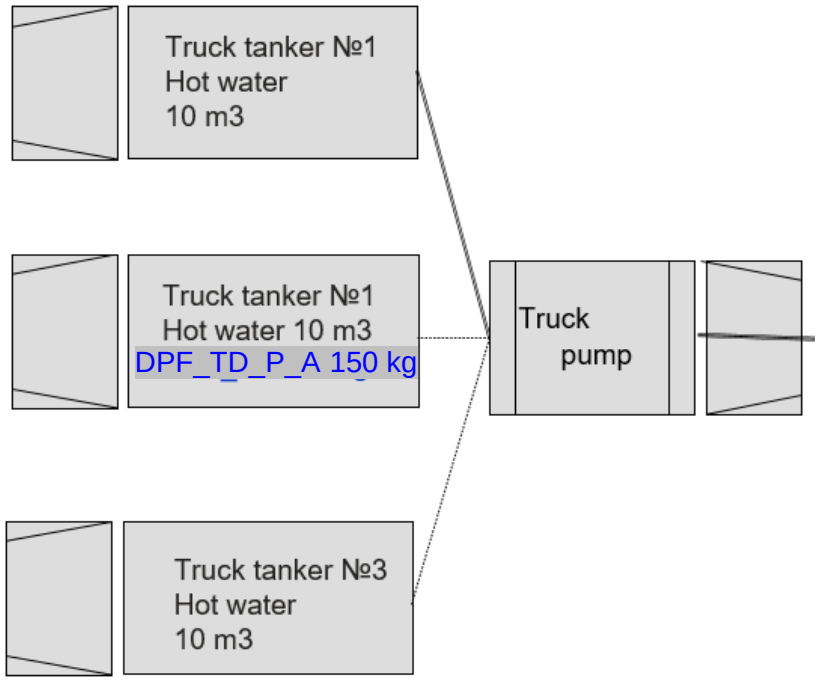
General principle of treatment:

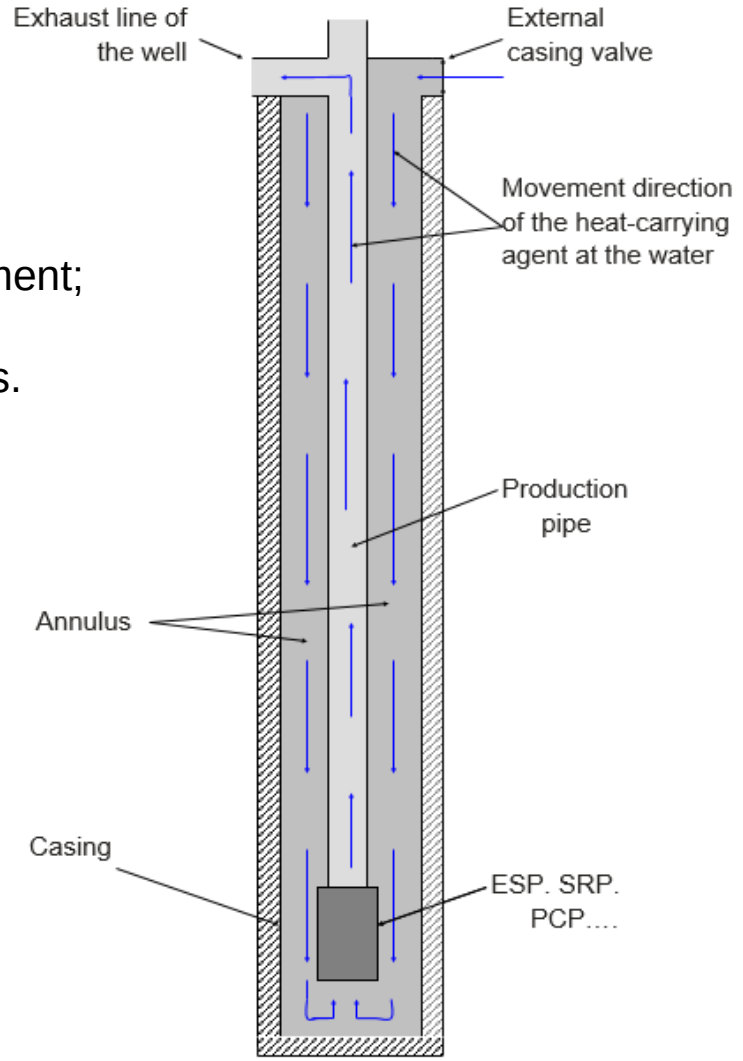
Injection of hot DPF_TD solutions into the annulus.

Hot Solution passes through running ESP (SRP, PSP or any other Artificial Lift) equipment;

DPF_TD removes crystallization wax and any organic/oil deposits from all the surfaces.



External casing valve



Oilfield Applications

Treatment to restore Well/Pump production case #1

Economic Solution: Diesel vs Solvent vs DPF_TD

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WF # 206			
Type of Solution:	**Diesel**	**Solvent**	**DPF_TD**
Bbls. of Diesel Used per Treatment	100		
Bbls. of DPF_TD Used per Treatment			100
Bbls. of SOLVENT- Initial Treatment (85 Gal)		2.7	
Oil Production Rate - Bbls/Day (After/During Treatment)	~257	~262	~274
Oil Production Rate - Bbls/Day (20 Days latter)	~227		~251
Frequency of Diesel Treatments - Days	20		
Frequency of SOLVENT Treatments		Continius @ 1 Liter per 10 BBL	
Frequency of DPF_TD Treatments - Days			20
Price per Bbl. of Diesel (2018 Average Price)	$101		
Price per Bbl. of SOLVENT (2018 Price)		$977	
Price per Bbl. of DPF_TD Mixture (2018 Price)			$25
SERVICE (Skid Injection Rental @ 185 USD/Day)		$66,600	
SERVICE (DPF_TD & Delivery & Injection Truck - Optional)			$18,250
Annual Cost (Materials)	$245,767	$95,277	$30,417
Annual Cost (SERVICE)	$0	$66,600	$18,250
Total Annual Cost (Materials & Service)	**$245,767**	**$161,877**	**$48,667**
	$172K @2018 Prices	**$113K @2018 Prices**	**$48,667 @ 2018 Prices**

Oilfield Applications

Treatment to restore Well/Pump production case #2

Economic Solution: Diesel vs Solvent vs DPF_TD

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WF # 72			
Type of Solution:	**Diesel**	**Solvent**	**DPF_TD**
Bbls. of Diesel Used per Treatment	70		
Bbls. of DPF_TD Used per Treatment			70
Bbls. of SOLVENT- Initial Treatment (65 Gal)		2.1	
Oil Production Rate - Bbls/Day (After/During Treatment)	~165	~169	~175
Oil Production Rate - Bbls/Day (30 Days latter)	~157		~167
Frequency of Hot Oil Treatments - Days	30		
Frequency of SOLVENT Treatments		Continius @ 1 Liter per 17 BOP	
Frequency of DPF_TD Treatments - Days			30
Price per Bbl. of DIESEL (2018 Average Price)	$101		
Price per Bbl. of SOLVENT (2018 Price)		$977	
Price per Bbl. of DPF_TD Mixture (2018 Price)			$25
SERVICE (Skid Injection Rental @ 180USD/Day)		$66,600	
SERVICE (DPF_TD & Delivery & Injection Truck - Optional)			$18,250
Annual Cost (Materials)	$172,037	$37,166	$21,292
Annual Cost (SERVICE)	$0	$66,600	$18,250

Total Annual Cost (Materials & Service)	**$172,037**	**$103,766**	**$39,542**
	$112K @ 2018 Prices	**$72K @ 2018 Prices**	**$39,542 @ 2018 Prices**

Detergent Professional Formula

Oil Well Cleaning Cost effectiveness (WF #206)

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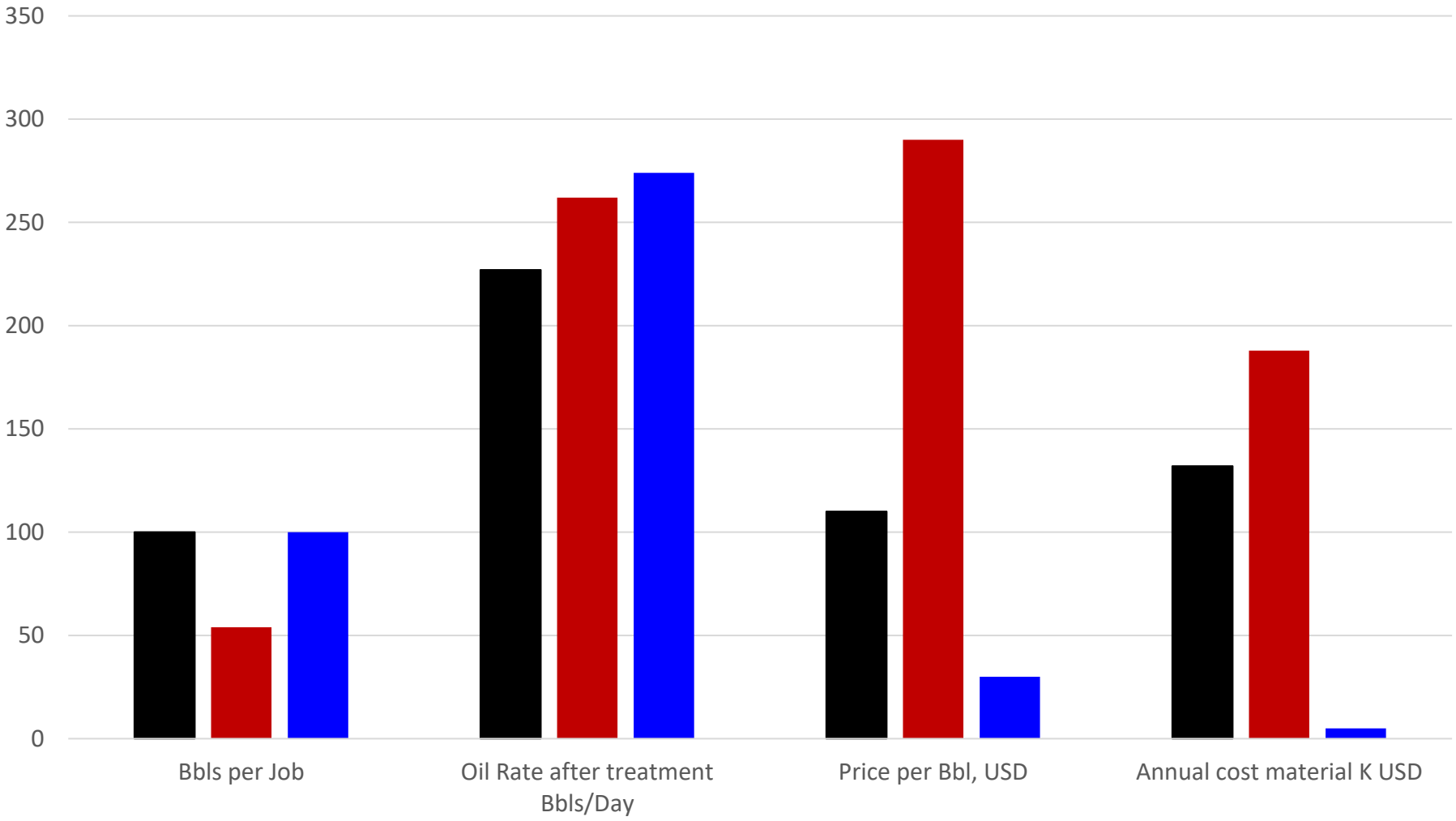

Oilfield Applications

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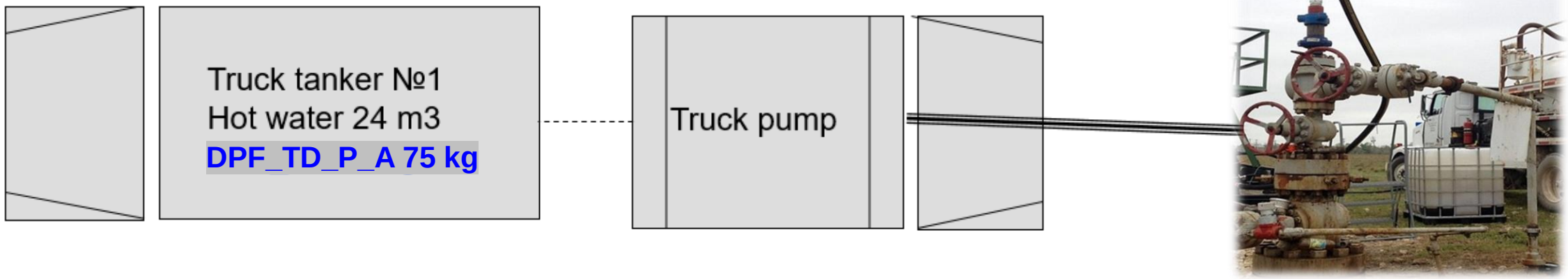
DPF_TD well treatment to evaluate impact on ESP run life via a scheduled injection.

General principle of treatment:

Injection of hot water 24m3 + DPF_TD 75kg solutions into the annulus two times a month.

DPF_TD removes crystallization wax + depositions working surfaces and clean ESP stages from the sticky layer of sediments which prevents the adhesion of sand and solid particles and, in turn, prevents wear of the equipment.



External casing valve

Oilfield Applications

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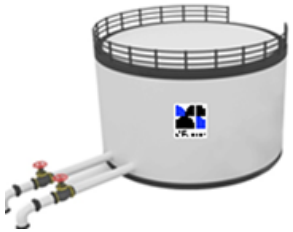
DPF_TD well treatment to evaluate impact on ESP run life via a scheduled injection.

Cluster	Well #	DPF_TD Treatment	Production Rate (BBL)	Water cut %	Run Life Before DPF_TD (Days)	Run Life After DPF_TD (Days)	Run Life % Increase	Extra BBL (OIL) Due to Introduction of DPF_TD	Incremental Revenue to Extra BBL (Average Price for 2018 Used ~ 70/USD)
4159	831E	(0.5KG / 1BBL) 150 BBL of Water + DPF_TD Mixture (75 kg) introduced 2 times a month for all candidates wells (150kg Usage a Month)	502	70%	55	105	91%	7536	$527,520
59	476		226	78%	55	105	91%	2487	$174,082
1224	31005		144	13%	68	118	74%	6283	$439,820
1214	30390		283	92%	99	149	51%	1130	$79,128
0	757P		239	69%	8	58	625%	3699	$258,924
46E	190E		226	97%	143	193	35%	339	$23,738
44e	624e		176	97%	163	213	31%	264	$18,463
66e	780e		88	59%	178	228	28%	1802	$126,165
125e	956e		138	77%	193	243	26%	1589	$111,219
2164	25669		94	42%	694	774	12%	4371	$305,962
908	25733		151	32%	370	420	14%	5124	$358,714
1538	18361		94	60%	506	556	10%	1884	$131,880

$2,555,615



Treatment of oil tanks

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DPF_TD is intended for removal of Paraffin and Asphaltene deposits as well as any other contaminants that are found after storage or transportation of the petroleum products.

DPF_TD applications request to use standard (existing) equipment.
Cleaning is performed continuously, until desired results are obtained.

In perspective of DPF_TD application:

Motor oil, petrol, transformer oil, industrial oil
Usually have low levels of contamination (solution is 1kg per 100 liter of hot water)

Diesel, fuel oil, waste oil
Usually have regular levels of contamination (solution is 2kg per 100 liter of hot water).

Viscous heavy oil, crude oil, sludge
Usually have heavy levels of contamination (solution is 3kg per 100 liter of hot water).

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Treatment of marine vessels

The marine vessels are cleaned with DPF_TD solution utilizing ship's standard equipment.

In perspective of DPF_TD application:

Deck, accommodation, hull
Usually have low levels of contamination (solution is 1kg per 100 liter of hot water)

Engine room, holds
Usually have regular levels of contamination (solution is 2kg per 100 liter of hot water).

Tanks: heavy oil, diesel, sludge
Usually have heavy levels of contamination (solution is 3kg per 100 liter of hot water).

DPF_TD has high efficiency and convenience of cleaning the bottom desk of engine room with high density of various pipes and tubes.

It is recommended to use a high-pressure washer with integrated water heating to improve the efficiency of washing.

The surface will be completely degreased and ready for painting after washing by DPF_TD.

Treatment of industrial facilities

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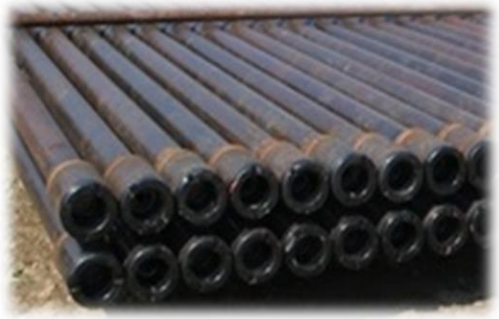
Thermal-chemical treatment of industrial facilities by DPF_TD proved to be reliable, safe and easy-to-use process for removal of **oil_asphalt_tar_paraffin_resin deposits (ATPD)** from facility equipment, gears, floor, walls and etc.

Simple application procedure: HOT WATER + **DPF_TD** : SURFACE TREATMENT + RINSE allows using DPF_TD as part of the equipment repair process (preparation for repair, painting, etc.) and as an independent surface cleaning process.







Treatment of Pipe Lines

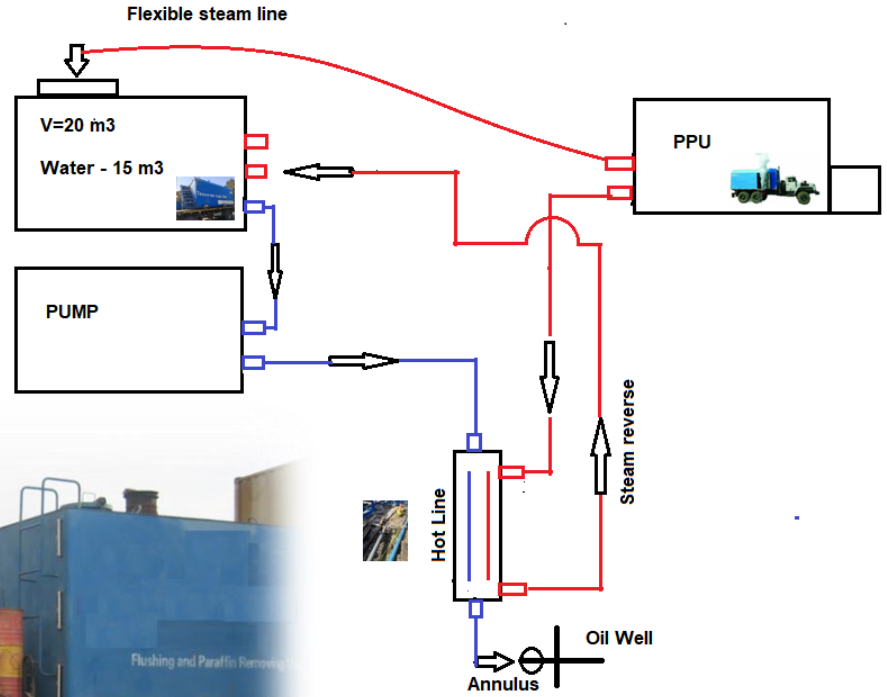
The oilfield pipe lines cleaned by DPF_TD solution utilizing Oil Company standard equipment.

Questionnaire DeProForm (DPF) Pipelines

DPF_TD

WELL	#1	#2	#3
OIL FIELD			
Length, m			
Diameter, mm			
Location (underground, on top, underwater)			
Ambient temperature C			
Maximum allowable pressure			
Sort of depositions			
Level of depositions			
Flushing frequency			
Material of pipeline			
Pipeline cleaning method before applying DPF			

Scheme of connection of equipment for TCT



Oil Production Pipes Repairing Facility

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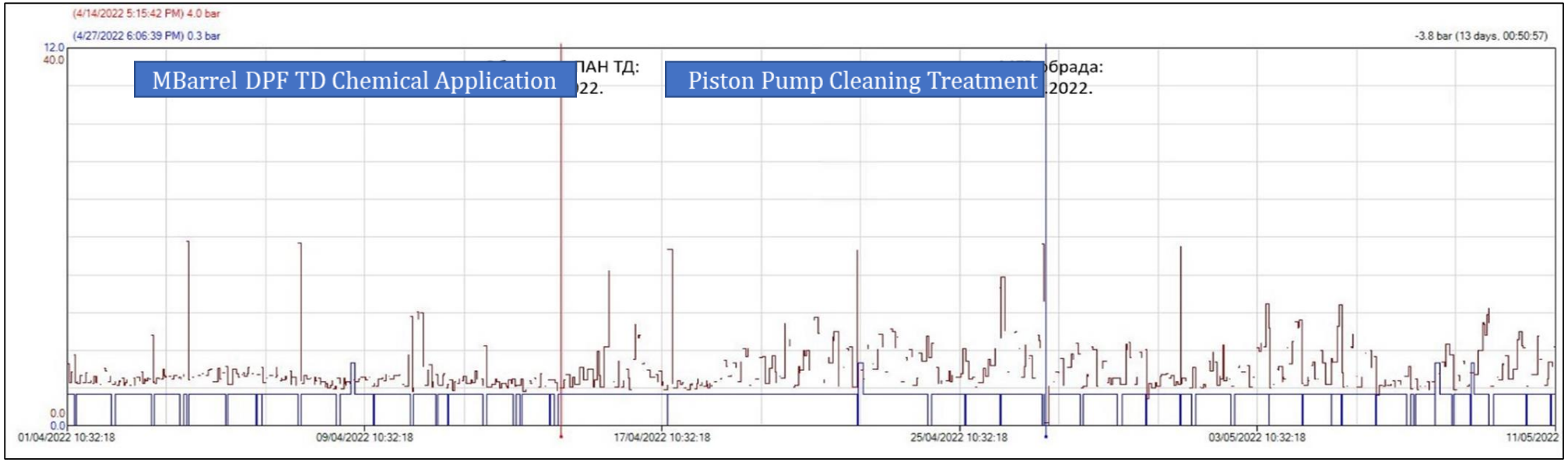
SRP and Oil Pipe Line

Average cleaning speed by small SU [min]	183	
Average cleaning speed by small SU after big SU intervention [min]	122	33% by Slickline
Average cleaning speed by small SU after DPF treatment [min]	103	16% by DPF



Vessel

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“We had successfully performed the Fuel Oil Sludge Tank cleaning by water based DPF_TD detergent solution.

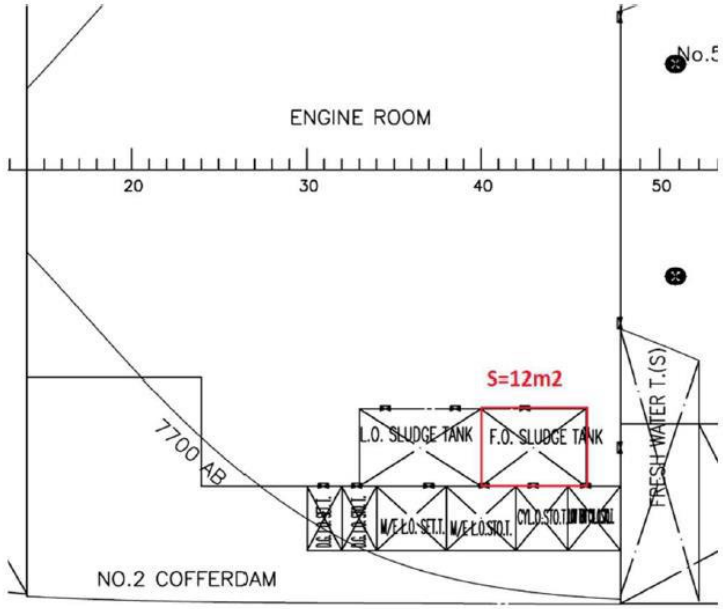
The tank’s side shelling and piping system are 100% cleaned and free from any sludge deposits. The tank bottom is 85% free from deposits.

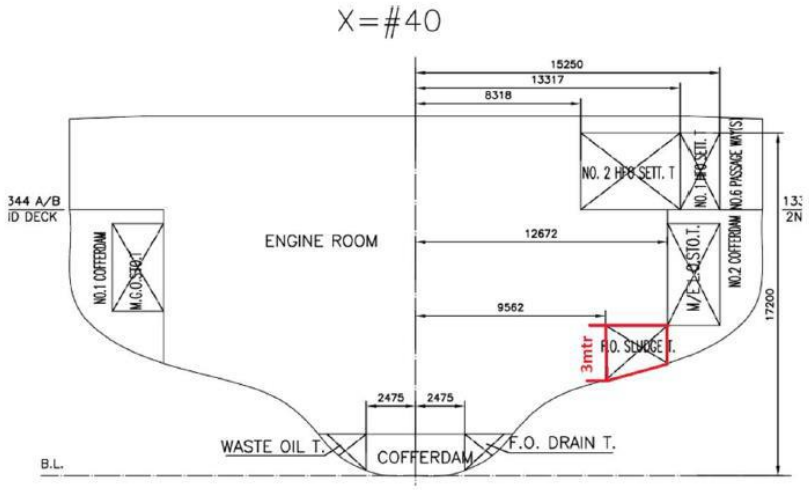
We are going to apply one more time the DPF_TD product and complete the tank cleaning process. We still have sufficient quantity of it.

We found your product good quality and fully complying with our requirements.

Thank you for good cooperation and kind assistance.
Handshake.

Best regards,
Chief Engineer
m/v CNC TIGER





MBarrel FZCO
Location: IFZA, Building 2, Office 101, Dubai, UAE

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UAE Dubai Silicon Oasis

Date: 31/12/2022 UAE Dubai

DeProForm Users:

1. **TATNEFT** Russian Oil Company (from 2001): oil wells, pipelines;
2. **GAZPROMNEFT-NOYABRSKNEFTEGAZ** - Russian Oil Company (from 2002): production pipes;
3. **ROSNEFT** (3 different branches) - Russian Oil Company (from 2002): oil wells, production pipes;
4. **TNK-British Petroleum** – British/Russian Oil Company (from 2005): oil wells, production pipes;
5. **SCHLUMBERGER** – Russian ESP Branch of Schlumberger (from 2008): oil wells;
6. **ALMETEVSK Factory** – ESP Manufacturer (from 2004): ESP spare parts, facility;
7. **DALNEFTETRANS** – Russian Oil Transportation Company (from 2006): oil tanks;
8. **NOVOMET PERM** – ESP Manufacturing Company (from 2007): ESP spare parts, facility;
9. **IZHNEFTEMASH** – Russian Manufacturing Company of Oil Equipment (from 2009): ESP parts;
10. **UGANSK NEFTE POMBUR Service** – Russian Drilling Company (from 2009): production pipes;
11. **ALNAS (5 Branches)** – Russian ESP Manufacturing Company (from 2010): ESP spare parts, facility;
12. **PERCENTA** – Germany Chemical Company (from 2010): metal constructions before painting;
13. **NPZ ORSK** – Russian Refinery (from 2010): oil tanks, facilities, pipelines;
14. **NPZ KRASNODAR** – Russian Refinery (from 2012): oil tanks, facilities, pipelines;
15. **PORT TUAPSE** – Russian Sea Port (from 2015): vessels, sludge tanks;
16. **VOLGOTANKER** – Russian Oil Transportation Company (from 2015): vessels, sludge tanks;
17. **Krongo** – Sudanese ESP Company (from 2015): oil wells, pipelines, production pipes;
18. **NUSATEQ PPT** – Indonesian Equipment Cleaning Company (from 2013): transport, tanks;
19. **ALKAZ INT TRADING LLC** – UAE Chemical Trading & Cleaning Company (from 2012): facilities;
20. **BIZONE TRADING LLC** - UAE Chemical Trading & Cleaning Company (from 2020): facilities.
21. **GS-Team** – Global Service Company (from 2021): facilities, tanks
22. **NIS Gazprom** – Serbia (from 2022): oil wells, pipelines, production pipes;
23. **CNC International Shipping** (from 2022): vessels, sludge tanks

Sincerely,

Sergey Mikhaylovskiy
Chief Executive Officer

GOVERNMENT OF DUBAI
DUBAI MUNICIPALITY

Detergents & Disinfectants Assessment Report

24 Sep 2014

Issued To	Ullasha General Trading LLC		
Authority	Department of Economic Development	676198	
Application Date	29 May 2014	043854030	
Valid Until	22/09/2017	043854030	
LA Status	Amendment	0528871475	
E Mail		89249	

Ref: DEH000003998

Brand	PAN		
Product Name	PAN Special Purpose Technical Detergent		
Category	Others	Form	Powder
Manufacturer Detail	Yes	Country of Origin	RUSSIA
Ingredients	Yes	Bar Code	No
Production Date	Yes	Batch No	Yes
Expiry Date	Yes	Shelf-life	36 Months
Period After Opening	No	Storage Condition	Yes
Warning	Yes	Packaging Type	Bag
Instruction of Use	Yes	Size / Weight	30Kg
Remarks	No Remarks		

- Compliance to the above mentioned remarks is compulsory and the presence of remarks reflect the incompliance of the product
- Product assessment report is issued with compliance of regulations and specifications currently enforced
- Products with valid assessment report without remarks are eligible for registration notice
- All registered & marketed products will be subjected to inspection & conformity with enforced regulations at the time
- Approved Electronic Assessment report issued without signature by Consumer Products Safety Section

DUBAI MUNICIPALITY
قسم سلامة المواد الاستهلاكية
Consumer Product Safety Section

Consumer Products Safety Section

قسم سلامة المواد الاستهلاكية

WA

Our Vision: Achieve highest standards in health and safety in our strive towards sustainability

Material Safety Data Sheet
Product: Special purpose technical detergent. "DPF TD P" Version 2.0

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER	
Trade name:	Special purpose technical detergent. "DPF TD P "
Chemical Formula:	Non-applicable
Supplier/Manufacturer Name	MBarrel F.Z.C.O.
Address	Dubai Silicon Oasis, DDP, Building A2, Unit 101, Dubai, UAE.
Emergency phone	+ (971) 55-664-0345

2. HAZARD IDENTIFICATION

2.1 Classification of substance or mixture:
CLP Regulation (EC). N2 1272/2008:
Skin Cor. 1B; Skin Corrosion/irritation. Category 1B
Skin Sens. 1; Skin Sensitization, Category 1
STOT SE 3: Specific target organ toxicity, single exposure. category 3
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard. Category 3

2.2 Label elements:
CLP Regulation (EC) N2 1272/2008:
Danger

Hazard statement:
H314: Causes severe skin burns and eye damage.
H317: May cause an allergic skin reaction.
H335: May cause respiratory irritation
H412: Harmful to aquatic life with long-lasting effects.

Precautionary statements:
P260: Do not breath dusts or mists.
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves / protective clothing / eye protection.
P301+P330+P331: IF SWALLOWED: Rinse mouth Do NOT induce vomiting.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P05+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P273: Avoid release to the environment.

CONTACT US

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Commercial Manager com.mng@mbarrel.ae