




Advanced Petroleum Recovery System (APRS)



Jason provide innovative, and one of the most significant and environmental challenges facing the oil and gas industry, is the treatment of waters coming from wells **environmentally friendly.** Non chemical technologies, that help to maximize production and lower operational costs.

With an increasing demand for Oil in the World, and the fact that Oil reserves are not growing at the same rate as is being consumed, the future of Oil Industry must rely on maximizing Oil extraction out of every field. Our technology is supported by a Core laboratories certificate.

Where in the 70's, only 30% of Oil was extracted from wells, in the 21st century it will necessary to extract 60% or more, in order to meet the world's demand. Technologies must be made available to achieve this goal.

What is APRS?

- A Technology to treat Produced Water, that increasing Oil-water separation and has other major benefits when water is re-injected.
- It is a Water Treatment, that uses Hydrodynamic Cavitation, a well-known and fully documented scientific process. HC Generation and subsequent growth and collapse of cavities resulting in a very high energy density generating conditions of very high temperature and pressure.
- Fluid pump through the device create areas of low pressure forming tiny size bubbles that collapse at critical size.



What is APRS?

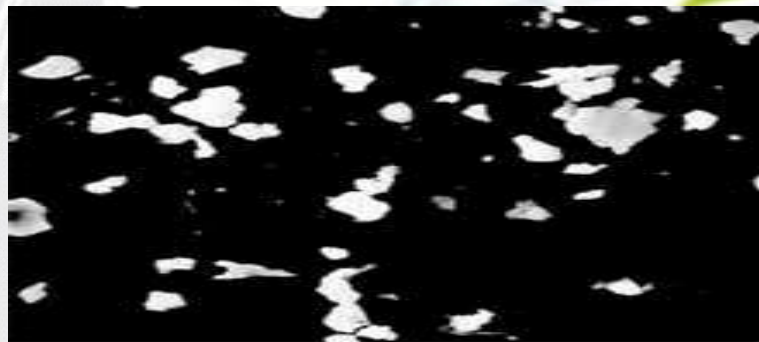
- The APRS process can be useful when using:
 - ✓ EOR (Enhanced Oil Recovery) increases production.
 - ✓ Oil water separation, water-Flooding, water treatment.
 - ✓ Facilitates Water Disposal.
 - ✓ Well Maintenance: elimination of asphaltenes, paraffin, swelling clays, etc.

Hydrodynamic Cavitation

The Technology, Bubble Collapse

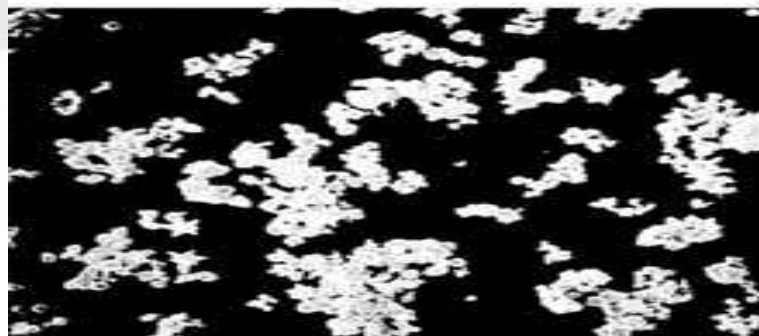
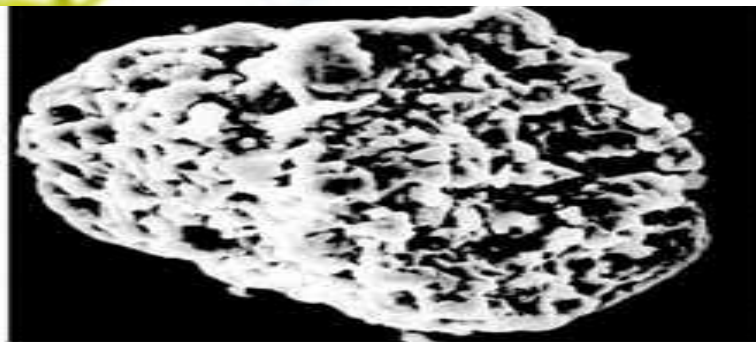
$$\gamma=4.1$$

Hydrodynamic Cavitation Agglomerating Particles & Minerals



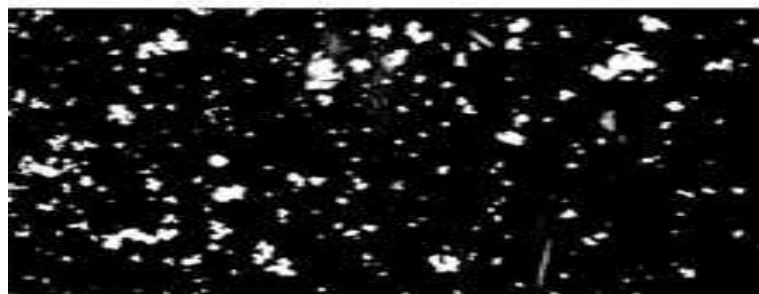
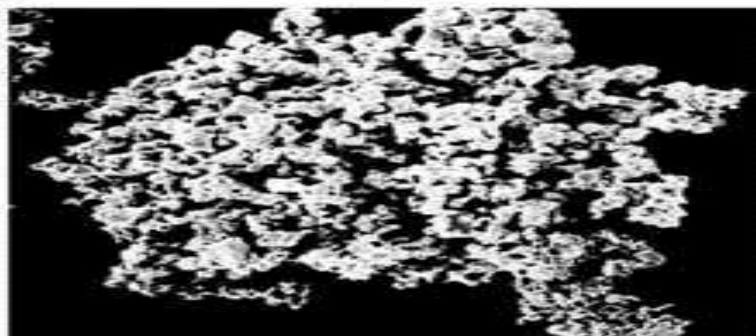
Cr
m.p.:
2130 K

3 μm



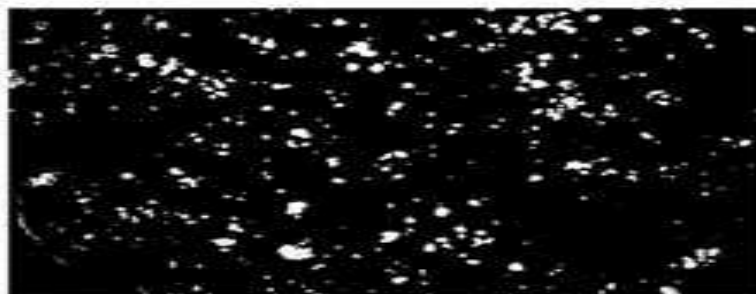
Mo
m.p.:
2890 K

20 μm



W
m.p.:
3683 K

100 μm



Before ultrasound

30 min. ultrasound

How is APRS Work?

Water dissociates to form H and OH- hydroxyl radicals

Some OH radical will form Hydrogen peroxide

Remaining water is thinner and negatively charges

Water molecule are broken into less bubbles

APRS REACTOR
15,000 BWPD

Produced
Water



Ionized
Water



APRS Cavitation Reactor

- ✓ Ionizes Water (Emulsions are broken separation oil from produced water)
- ✓ Water and oil Surface tension is reduced.
- ✓ Agglomerates particles of Heavy metals and mineral: makes filtering and precipitation of solids much easier.
- ✓ Creates a “lighter” water, with much more mobility, ideal for water-flooding or re-injection.
- ✓ Dissolves clays, removes paraffin and asphaltenes from perforations.

1- Enhanced Oil Recovery (EOR)

Environmentally Friendly

Injecting Produced Water to the reservoir, is a well-known EOR (Enhanced Oil Recovery) method.

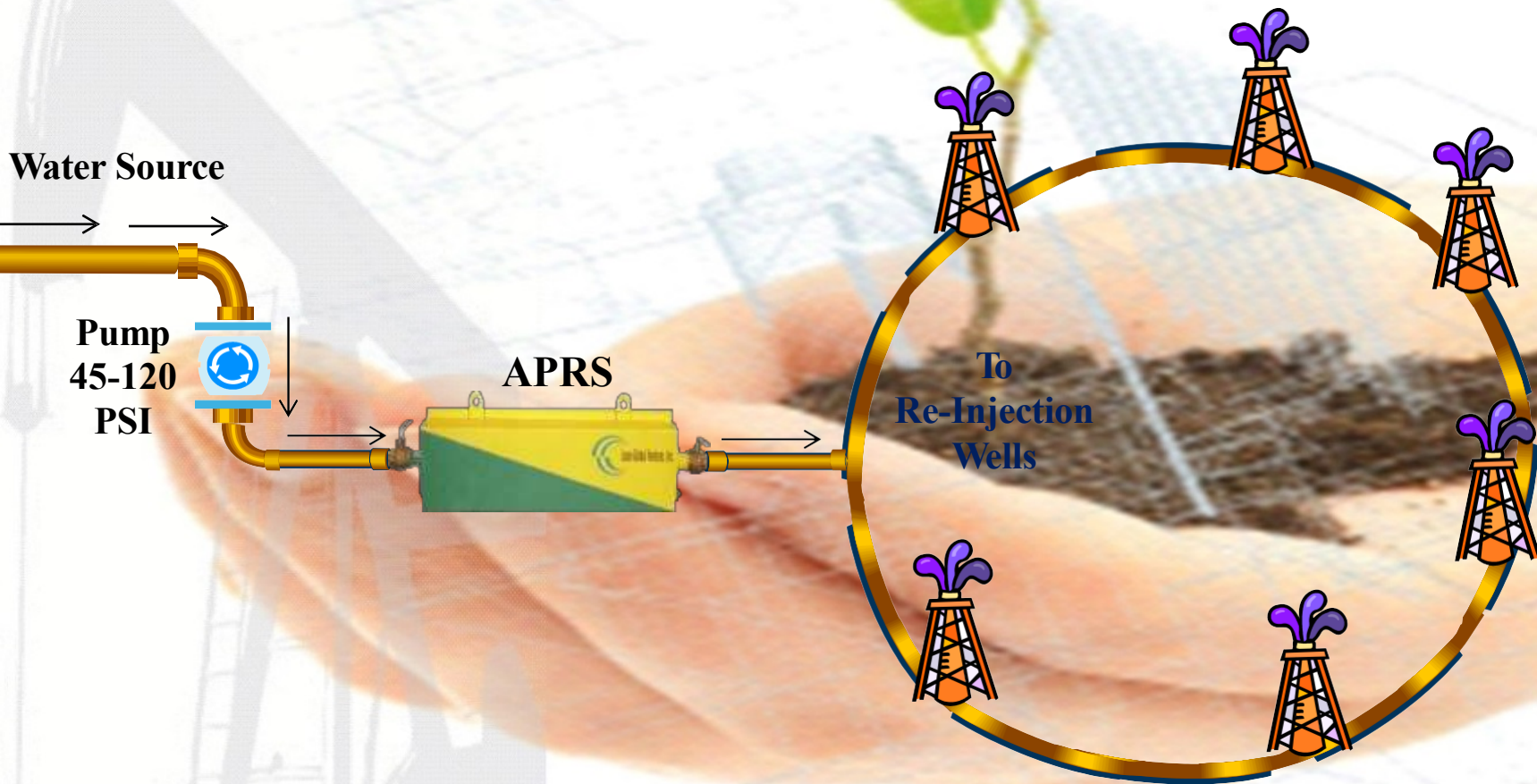
Injecting Ionized Water increases oil recovery from 10% to 40% (depending on the reservoir characteristics.)

“Hydrogen and Hydroxyl are created from the Ionization, When injected in a Hydrocarbon reservoir, a gas pressure drive in addition to a water drive is created.

The treated water also repels oil, so that it sweeps any oil retained in the porous rock. Ionized water also passes more rapidly through the porous rock due to its reduced molecular group size.”

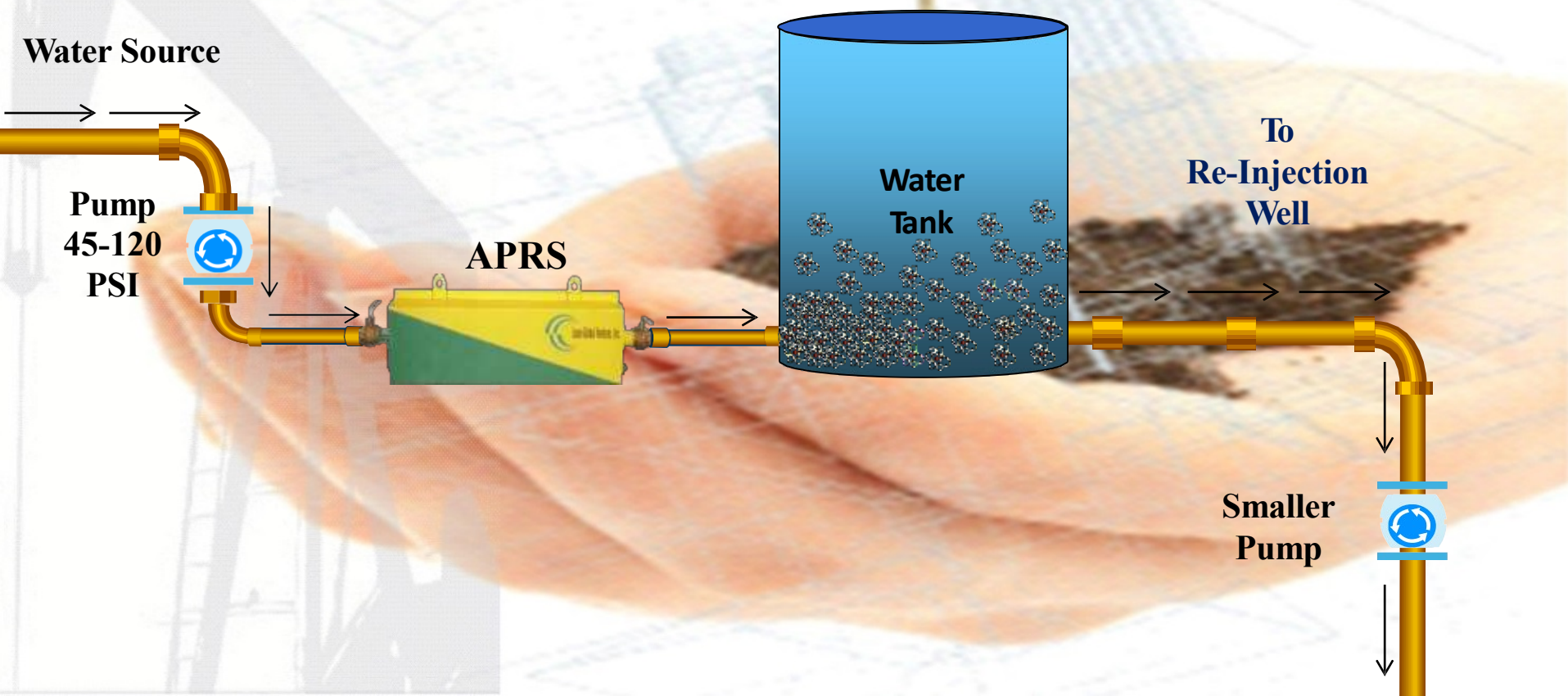
APRS EOR

Ring Typical Installation



APRS EOR

Single Typical Installation



2- Oil Water Separation Environmentally Friendly

- Makes Oil-Water separation much more efficient: 99.00% of Oil is removed from the water.
- Fast Separation.
- Eliminates the need for Chemicals.
- More Produced water due to better separation.
- Less water content in Oil.

3- Improves Water Disposal Environmentally Friendly

- Injection of APRS-treated Produced Water into a Well disposal zone, will result in 50% reduction in injection pressure.
- This results in 50% energy savings, and potential use of smaller pumps.
- Using the same pressure, twice as much water can be disposed of.



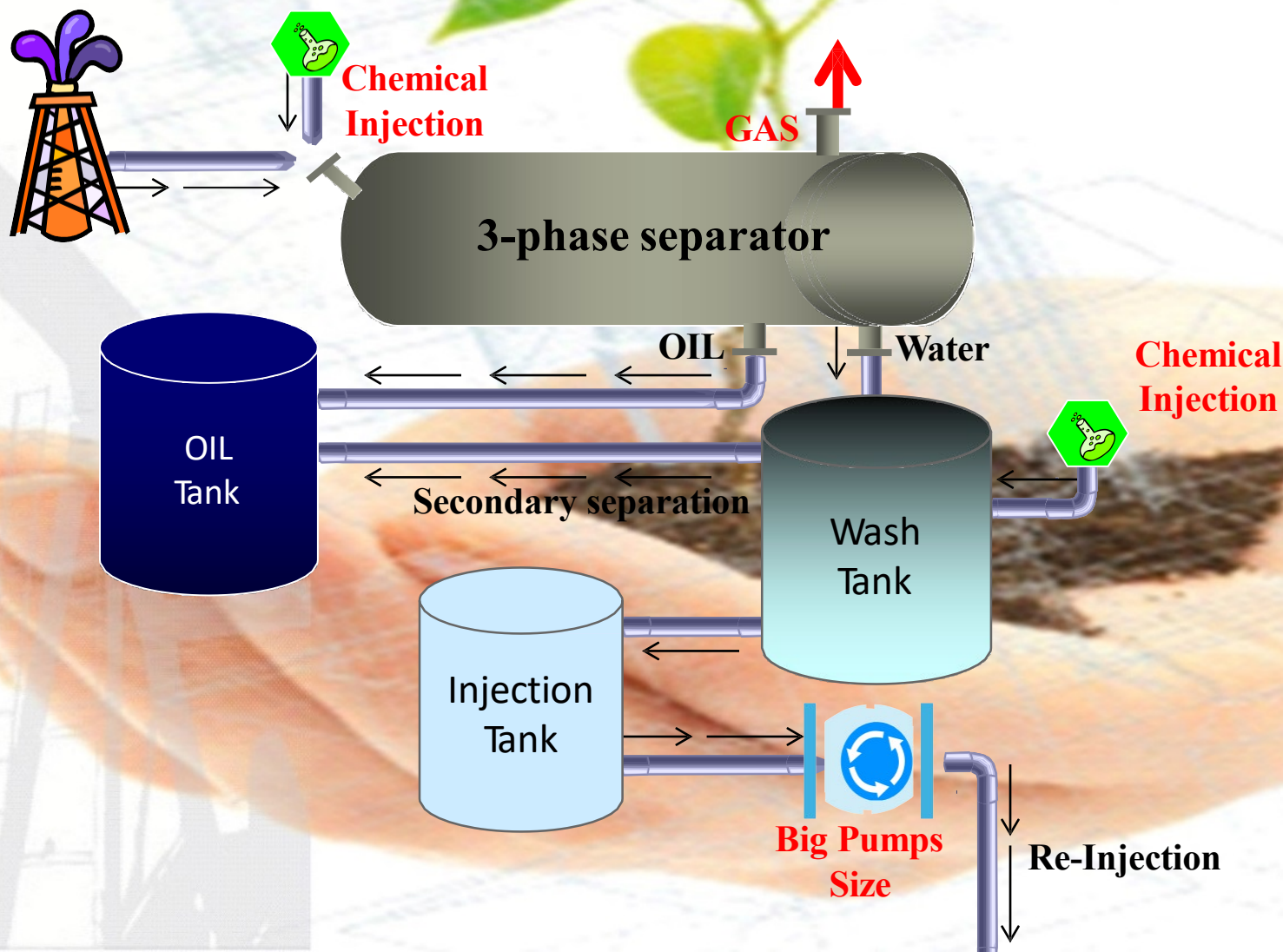
4- Improved Well Maintenance Environmentally Friendly

- **APRS Reduces Maintenance down-times due to:**
 - Reducing corrosion.
 - Reducing Well Damage.
 - Cleaning and maintaining integrity of Perforation.
 - Removing, dissolving swelling clays.
 - Breaking down paraffin buildup.
 - Reducing Sulfites and Asphaltenes deposits.

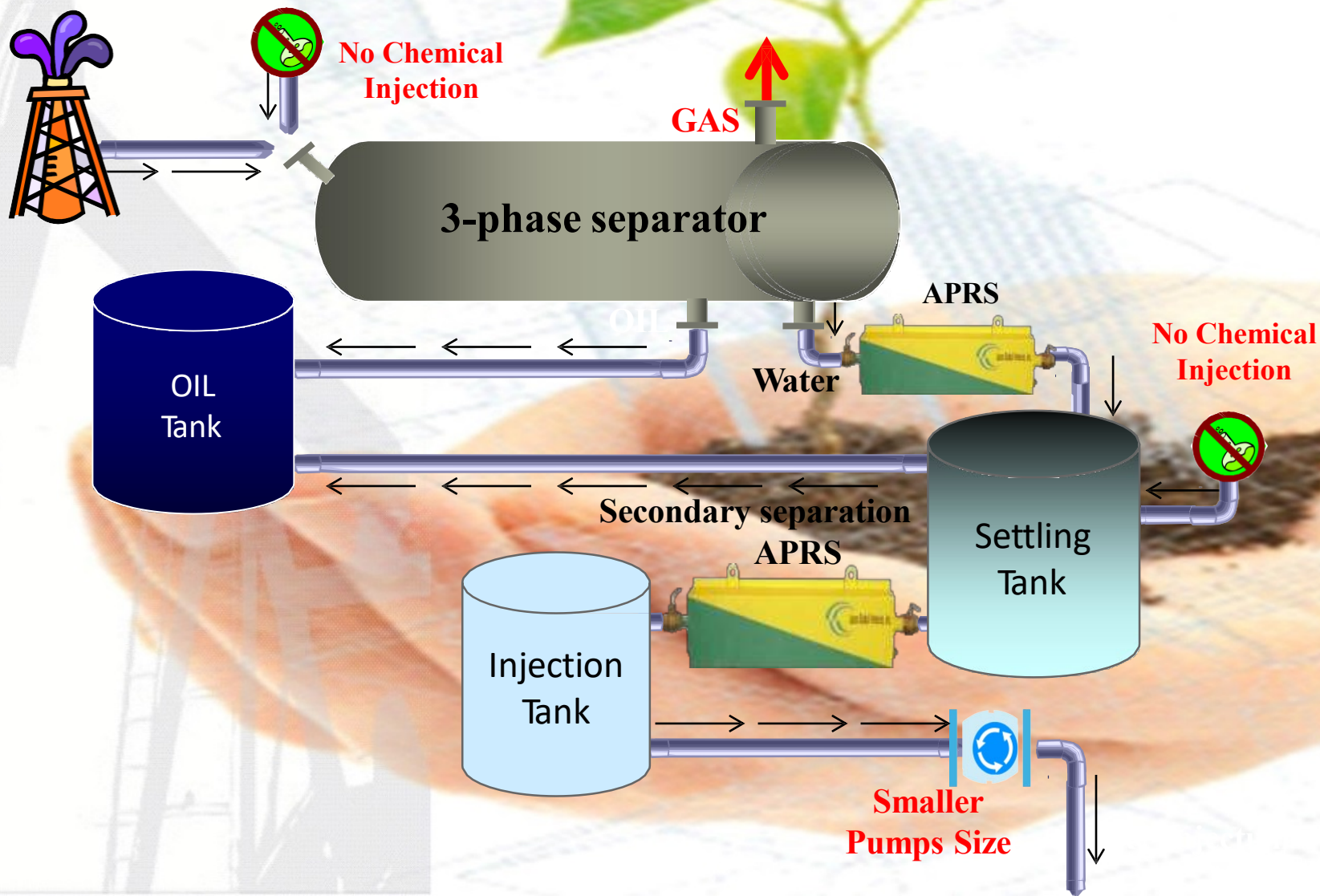
APRS Installation

- Our APRS can be used in ***existing*** facilities, pumps, tanks, separators, etc.
- Are custom designed to fit commercial pipe size.
- No additional pumps are needed (typically a pressure between 45 to 120 psi).
- Does not consume additional energy.
- No major rework or retrofit of installations is required.

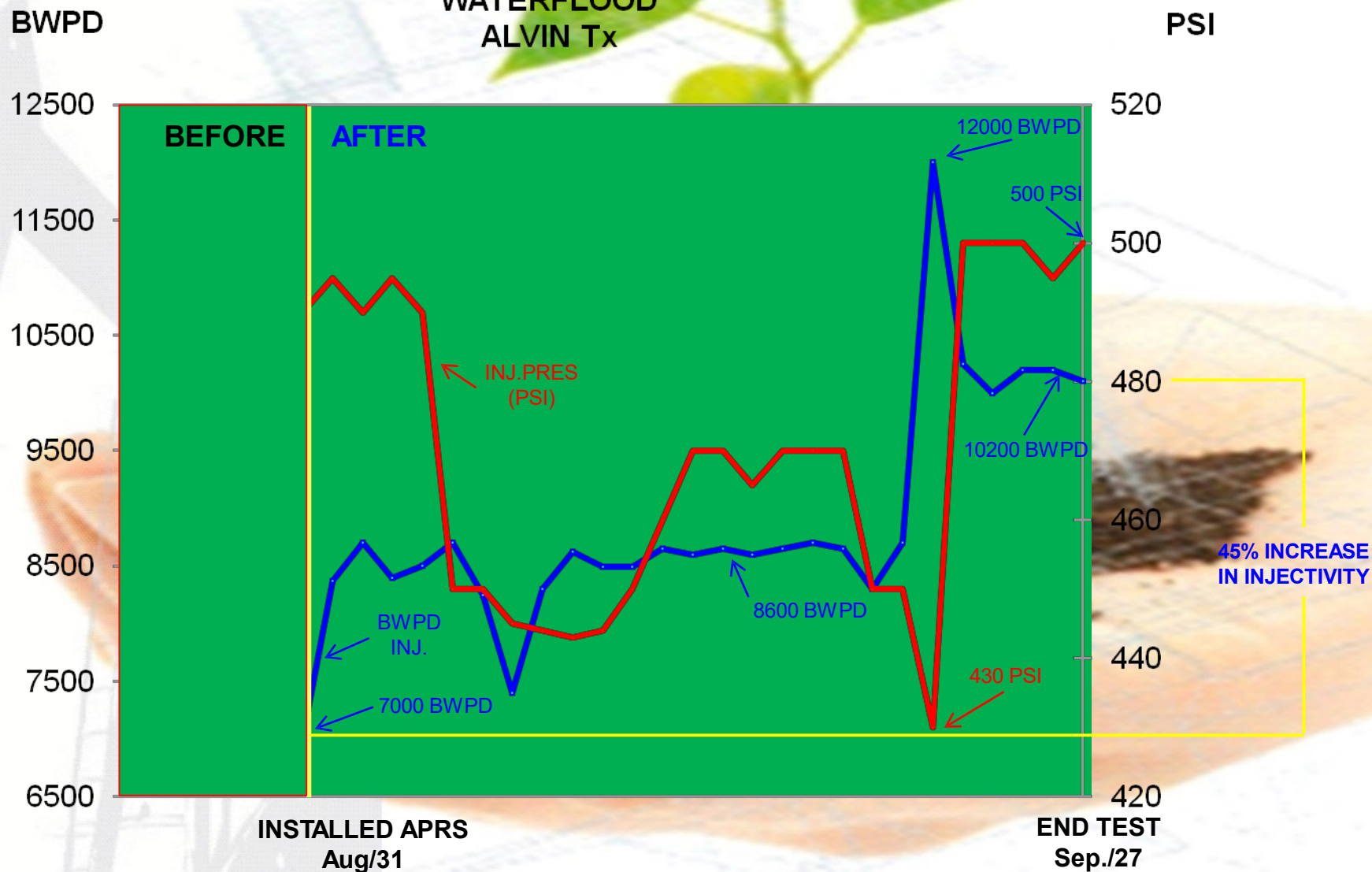
Typical System (with Water Disposal)



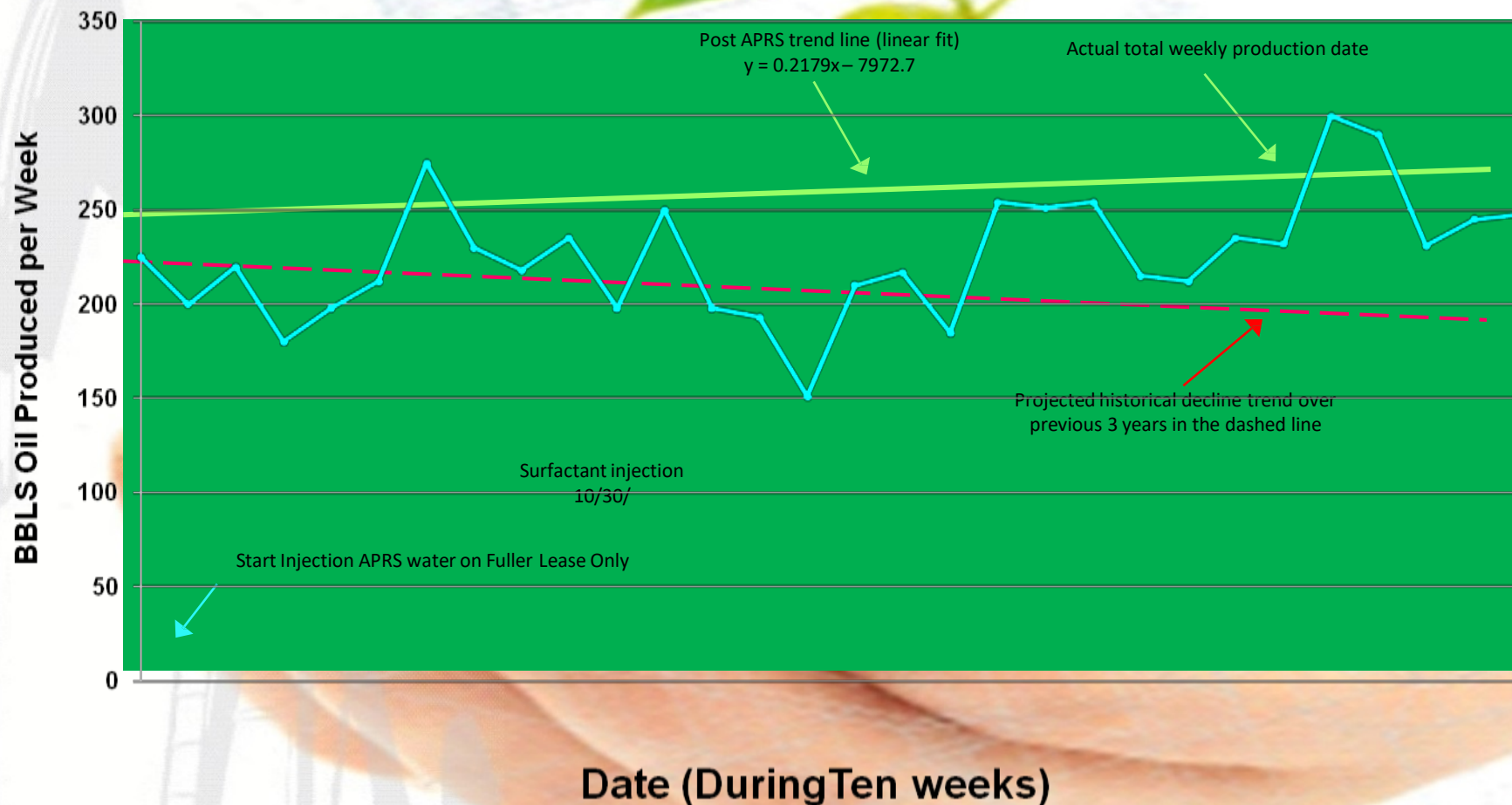
Typical (APRS) System



**TRI UNION OIL, Co.
WATERFLOOD
ALVIN Tx**

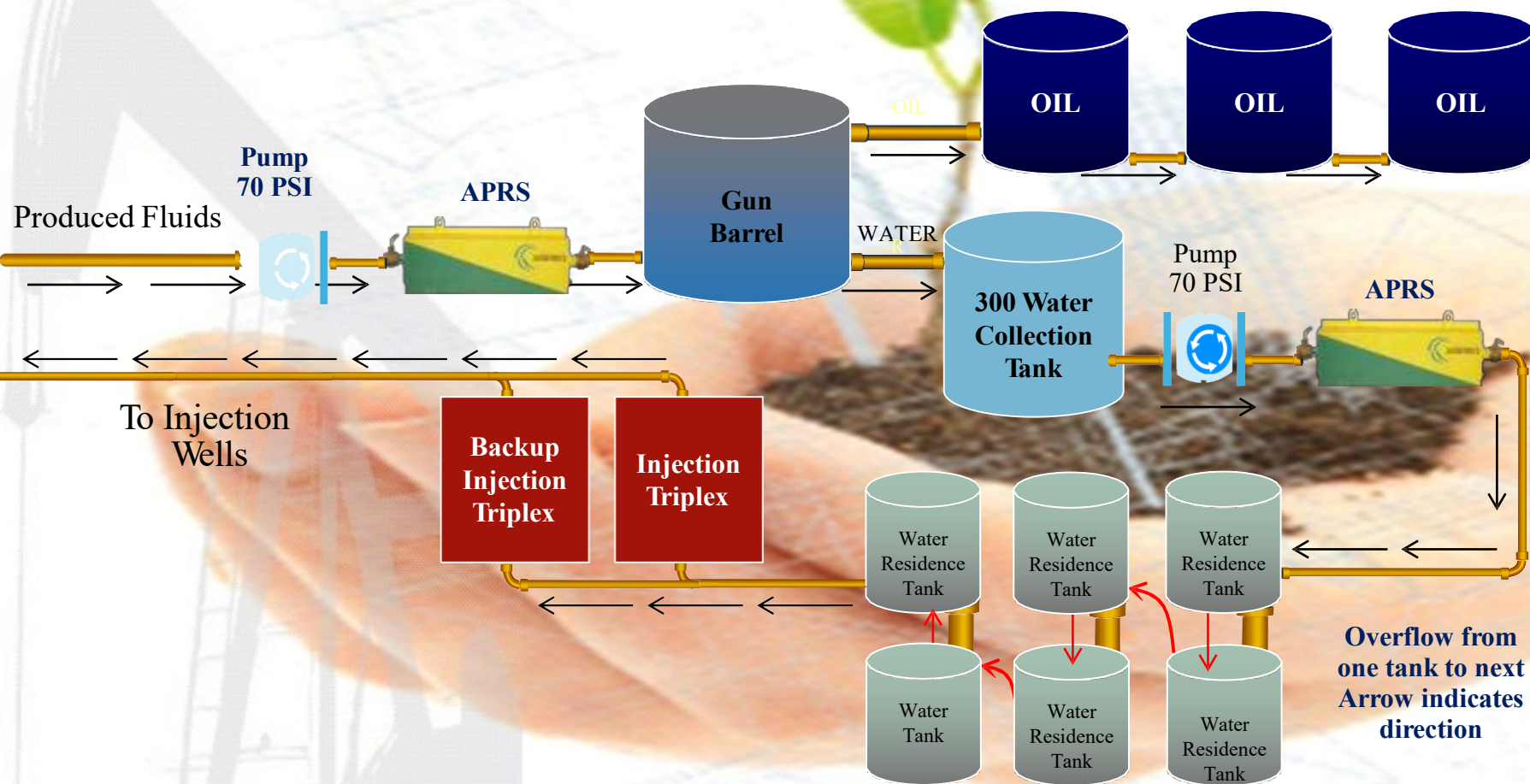


Fuller/Glades Texas- Weekly Produced Oil since APRS Installed



Kilgore Ranch (Texas) Cross-Cut Sand Water Flood APRS

Injection Station #1



APRS Remove of Chemicals & Minerals One Pass Before and After

| Chemical Concentration (ppm) | Input Water | Output Water | Percent Removal | Maximum Allowed |
|---------------------------------|----------------|-----------------|--------------------|--------------------|
| Lead (as PBCl) | 0.16 | 0.009 | 94.4% | < 0.025 |
| Barium | 10.0 | 0.000 | 100.0% | < 1.0 |
| Arsenic | 0.33 | 0.001 | 99.7% | < 0.05 |
| Cadmium | 0.030 | 0.003 | 90.0% | < 0.01 |
| Chromium VI | 0.152 | (0.052) | 65.8% | < 0.05 |
| Chromium III | 0.163 | (0.065) | 60.1% | < 0.05 |
| Selenium | 0.105 | 0.000 | 100.0% | < 0.01 |
| Mercury | 0.0063 | 0.000 | 100.0% | < 0.002 |

Financial Benefits

Example 1: APRS with water re-injection

| Production Fluid (Barrels/Day) | Oil Production (Barrels/day) | Oil Content in Water | Oil Content after APRS Process | Additional Production (B/Day) | Average Oil Price US \$ | Daily Revenue Increase (\$) |
|-----------------------------------|---------------------------------|----------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------|
| | | | | | | |
| 200,000 | 50,000 | 1.20% | 0.10% | 2,200 | \$45 | \$99,000.00 |
| | | | | | | |

Financial Benefits

Example 2: APRS Oil-Water Separation

| Production Fluid (Barrels/Day) | Oil Production (Barrels/day) | Average Production Increase | APRS +Total Production (Barrels/day) | Production Increase with APRS | Average Oil Price US \$ | Daily Revenue Increase (\$) |
|-----------------------------------|------------------------------------|-----------------------------------|--|-------------------------------------|-------------------------------|-----------------------------------|
| | | | | | | |
| 200,000 | 50,000 | 25% | 62,500 | 12,500 | \$45.00 | \$562,500.00 |
| | | | | | | |

Financial Benefits

Example 3: APRS Energy savings in Disposal Process, & Cost of Smaller Pumps

(Based on ONE Pump with a capacity of 18 GPM or 500 BBLS/Day at 1000 RPM)

| Pump Consumption at 1000 PSI | Average Cost of KWH | Monthly Energy Cost | Pump Consumption at 500 PSI | Monthly Energy Cost with APRS | Monthly Savings |
|------------------------------|---------------------|---------------------|-----------------------------|-------------------------------|-----------------|
| 93 KW | \$0.07 | \$4,682 | 46 KW | \$2,318 | \$2,364 |
| Equip/Costs | Smaller Pumps | 25% Less | | | |

Financial Benefits

Example 4: APRS Environmental Cleaning Process, Governmental Costs

| Production Fluid (Barrels/Day) | Oil Production (Barrels/day) | Cost to Clean P/Barrel | Cost Per B/Day | after APRS Process | Average Oil Price US \$ | Daily Revenue Saving (\$) |
|-----------------------------------|---------------------------------|---------------------------|-------------------|--------------------------|----------------------------|------------------------------|
| 200,000 | 50,000 | \$ 1 | \$ 50,000 | 0.0 | \$45.00 | \$2,200,000.00 |
| | | | | | | |



Our Proposal

- Demonstration of our Technology free trial test.
- Engineering and analysis of an APRS system for test or Pilot Oil field/ Oil Well.
- Service Agreement for the APRS, with our own equipment and personnel.
- Installation of APRS.
- Demonstrable, measurable results.

Dukhan Lab Test (Qatar) 04/04/2008



2008/04/20

Dukhan Lab Test (Qatar) 04/04/2008



Dukhan Lab Test (Qatar) 04/04/2008



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صندوق البريد رقم ٣٢١٢
الدوحة - قطر
انترنت : www.qp.com.qa
رقم الهاتف :
رقم الفاكس :

Ref. No. : PD/D/GE.69.1/52/2010
Date : 14th January 2010

رقم الإشارة :
التاريخ :

M/s. Jason Global Ventures, Inc.
Wickhams Cay, Road Town,
Tortola, British Virgin Islands.
info@jasonglobal.com

Dear Sirs,

Letter of Acceptance for Field Test and Lab Test at QP's Dukhan Facilities

The following letter has the purpose to accept as a successful limited scale (5000 BWPD) Field Test conducted by Jason Global Ventures Inc., APRS Technology, conducted on September 2008 at Qatar's Petroleum plant "Khatiyah North."

The bases to consider are the results emitted by QP's Laboratory sent the twenty-first (21) of September 2008, as well as analysis issued by the same QP's laboratory dated on twelve (12) of November 2008, for determination of the H₂S Gas Content in water samples that were treated during the (5000 BWPD) Field Test carried out by Jason Global Venture's professional staff and finally it must be taken into consideration the conditions required by Jason Global Ventures, Inc., that where requested from the beginning and that by different causes they could not have been fulfilled totality.


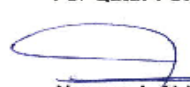
The Samples were analyzed by QP's Lab Technical's, first on the site in the Plant of Khatiyah North, and then they continued in the Lab. The best result was achieved at the pressure 50 psi even thou H₂S content was more than 950 ppm, then again the importance to emphasize the total elimination of H₂S in the water's samples to be treated by APRS device. Eliminating H₂S from samples, Jason Global Ventures Inc., can guarantee 100% the security needed to handle such samples and the results are as the following: -

It was achieved 14 ppm, less than the QP's requirement to have below 40 ppm.

To sum up, we conclude that the results achieved by Jason Global Ventures' APRS technology are in compliance of QP's standards.

Best regards,

Yours sincerely,
For Qatar Petroleum



Nasser J. Al-Kuwari
Manager Production (Dukhan Fields)

RMEILAN FIELD TEST (SYRIA) 12/08/2011



| | | |
|---|--|---|
| SYRIAN ARAB REPUBLIC MINISTRY OF OIL MINERAL RESOURCES SYRIAN PETROLEUM COMPANY |  | الجمهورية العربية السورية وزارة النفط والثروة المعدنية الشركة السورية للنفط |
|---|--|---|

السيد وزير النفط والثروة المعدنية

تقدمت شركة Jason global بالكتاب المسجل بالديوان العام في الشركة السورية للنفط برقم ٣٦٧٩ / تاريخ ٢٠١١/٣/٢ ضمنته رغبته القيام بعمليات تحسين الإنتاجية على بعض الآبار النفطية في الحقول التابعة للشركة السورية للنفط بعد أن قامت بإلقاء محاضرتين فنيين الأولى في الإدارة العامة والثانية في الحقول قامت من خلالها بشرح التقنية التي تملكها والتي تتميز بالقدرة على فصل الماء عن النفط مما يقلل من استخدام موانع الاستحلاب الكيميائية ، إضافة إلى معالجة المياه المرافقة وفصل الأملاح منها وإعادة حقنها بعد أن يتم تأيينها ما يساعد على زيادة حجمها وإقلال ترابطها بالصخر في الطبقات المنتجة مما يساعد بشكل فعال على زيادة فعالية صلبة كس النفط وبالتالي زيادة الإنتاج ، كما أبرزت خلال المحاضرتين رسالة صادرة عن شركة قطر للبترول تؤكد نتائج إيجابية لتطبيق هذه التقنية في حقول قطر .
وقد قامت بالتوقيع على مذكرة التفاهم المعمول بها بالشركة السورية للنفط .
يرجى التفضل بالإطلاع والموافقة على إجراء التجارب المجانية وفق مذكرة التفاهم المعمول بها في الشركة السورية للنفط .

دمشق في ٢٠١١ / ٣ / ١٠
المدير العام للشركة السورية للنفط
المهندس عمر الحمد
مرفق صورة عن مذكرة التفاهم

TRANSLATION

Mr. Minister of Oil and Mineral Resources

Jason Global Company submitted the book registered in the General Bureau of the Syrian Oil Company No. 3679 and dated 2-3-2011, which included its desire to improve productivity on some wells in the fields of the Syrian Oil Company after they held two technical lectures, the first in the public administration and the second in the fields, which were held through it Explaining the technology that it possesses, which is characterized by the ability to separate water from oil, which reduces the use of chemical emulsification inhibitors, in addition to treating the accompanying water, separating the navigator from it and re-injecting it after it is ionized, which helps to increase its size and reduce its connection to the rock in the producing Tabatkat, which helps effectively On increasing the effectiveness of the oil sweeping process and thus increasing the production, and during the two lectures, a brief message from Qatar Petroleum confirmed positive results for the application of this technology in the fields of Qatar.

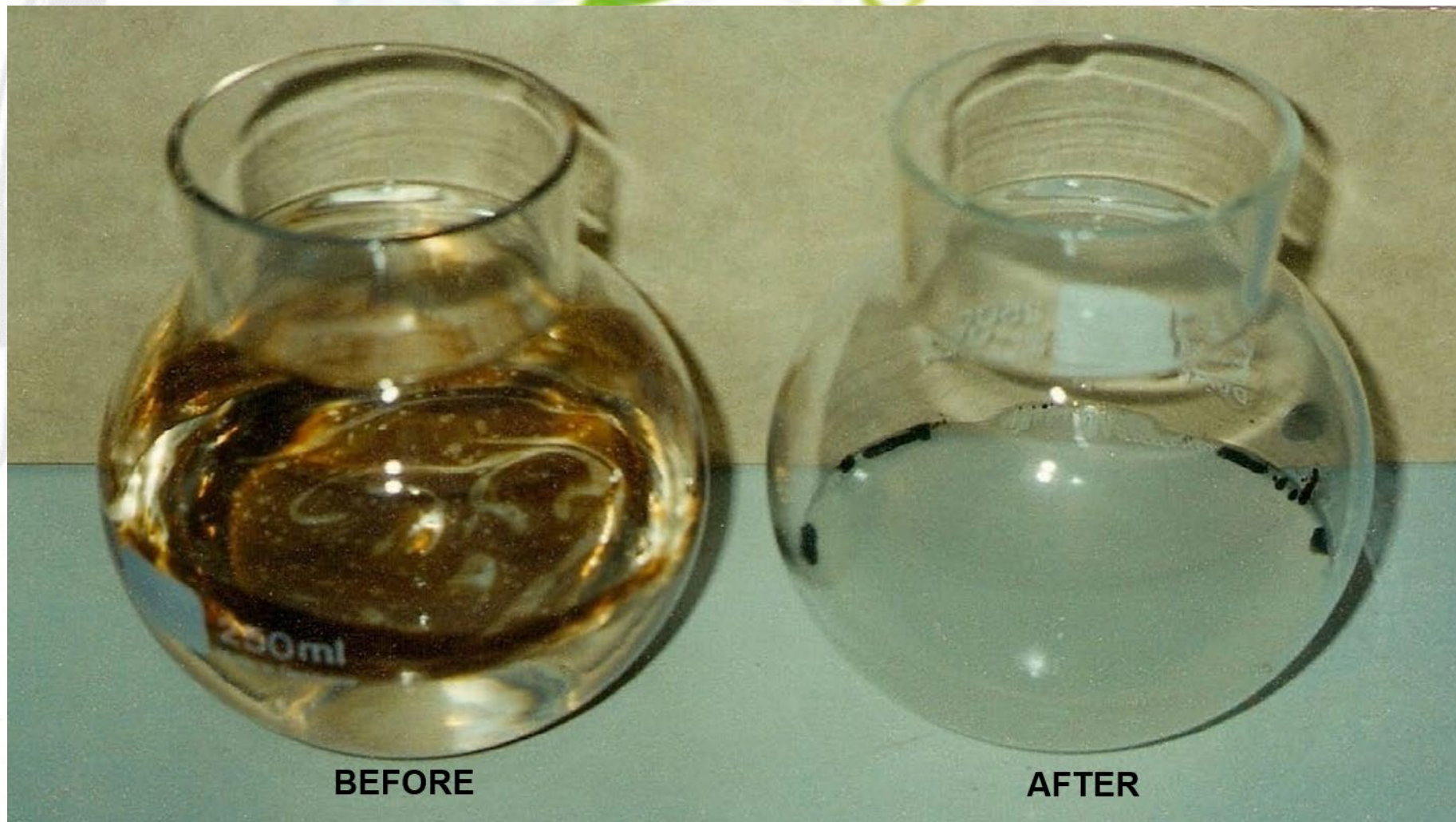
He signed the memorandum of understanding in force with the Syrian Oil Company.

Please read and agree to conduct free trials according to the memorandum of understanding in force at the Syrian Oil Company.

Damascus on 13-3-2011

A copy is attached to the memorandum of understanding
General Manager of the Syrian Oil Company
Engineer Nimr Al-Hamad

APRS Kuwait (KISR) Lab Test





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