



# Paraffin Destroyer Control Case Studies

## Ohio

### Trempealeau Formation

- ❖ This well was being heavily considered for plugging. One half to three quarters of a barrel per day with large amounts of paraffin in the wellbore and formation from years of hot oil treatment. After the initial treatment, the well has gone to two and a half barrels a day. Subsequently the piping had a hole in it so when it was pulled along with the pump it clearly showed how well Paraffin Destroyer had cleaned both and other mechanical parts. Well is now under the second treatment with more of the producers wells scheduled for treatments. After the second treatment the well is now a little better than 3 bpd and the water has doubled. They had a tank picked up and the API came back at 43 and the BSW at .2. The previous pick up had the API at 39.5 and BSW at 1.5. Prior to Paraffin Destroyer the well servicing company could drop a plum bob down in the tank after a pickup was made. Now they drop the plumb bob and it hits on metal. Sludge is gone, leaving more room for crude to be hauled off next time.
- ❖ This producer had a minor paraffin problem, but had H<sub>2</sub>S in abundance in his water. This caused severe corrosion and constant maintenance costing both time and money. It took days to separate the oil from the water. After initial Paraffin Destroyer treatment the water had no more odor and oil separation was done in minutes now. Water testing is being done to see the difference from before treatment and after.
- ❖ This well is rated one of the top five worst paraffin wells in the county. It is also has slim hole tubing and is over 5,000 feet in depth. The initial treatment with Paraffin Destroyer was left shut in an extra day. Mistake, too much paraffin was released and it caused a semi plugging at the end of the well stroke in the slim hole. The well servicing company had faith through experience with Paraffin Destroyer and manually worked the pump over the course of 24 hrs. Two three hour periods where he brought the pump to the top of its stroke and let it fall on its own (approximately 50 times on each occasion). This brought enough Paraffin Destroyer up into the slim hole to do its job. The pump was now able to run continually. What was coming out of the well is black gun grease like substance (paraffin). So this well is on its way to sending paraffin to a new home and getting the well bore, slim hole, pump, rods etc. free from obstruction. After one week of treatment well has doubled production from 5 bpd to 11 bpd.



- ❖ This well is a high volume water producer. Between 80 to 110 bpd water and 11 bpd of oil. The producer has several other wells under Paraffin Destroyer and had been hot oiling this one. The producer decided to try it because hot oiling was not doing very much for him and thought it might just get him a bump in production. The treatment was left in for 4 days on the initial dose and it has shown an average of 14 ½ bpd oil or 3 ½ bpd increase in oil over a short span.

### **Clinton Formation**

- ❖ Treated for the first time with Paraffin Destroyer. Left the well shut in for 48 hours. When turned back on a large amount of viscous black paraffin along with other materials is coming up. Slowed down the pump as to not bring up too much fluid at once. This is precautionary as to not plug the tubing. One week in the process 9/8/2016. This well has seen a better than a doubling of fluids as of 9/20/2016.
- ❖ This producer took a good while doing experiments in his lab before trying out Paraffin Destroyer. His concern was not putting SRB's in the well. After a couple of months he was satisfied that Paraffin Destroyer did not pose any risk. So he chose a well that was close by and was being considered for plugging (1/2 bpd of oil or less). We did the initial treatment and pulled up quite a bit of gun grease like substance (paraffin). His well was not putting out anymore fluids though. So the pump time was increased and still not a good increase. The producer then said that the pump had lost some of its seal. We then did another treatment after 30 days and he got a little better increase in fluids plus oil. He could see very good evidence that the treatments were doing something but had not decided what to do about the pump. So he left for a month in Florida and said we will decide when I get back. After arriving back he decided to pull the pump and since he had not pulled it in 10 years, he was ready to have to strip it. To his surprise the rods and pump came out with ease and the rods showed how they were being cleaned up. After the new pump was installed they pulled over 16" of oil in the tank. It took over a week to pump it down and now it is averaging over 3 bpd. He has now put on 5 more wells to test with good results coming in. Some of his other wells that are on chemical treatments monthly have now been pulled off and will be testing those soon also.



- ❖ A new producer to us called and wanted to try out Paraffin Destroyer before possibly plugging a well. This well was doing at best ½ bpd. Over the last year it started producing more and more drip gas. The producer mixed the drip gas with diesel and used the mixture to cut paraffin. This initially was working ok but kept getting less production and was causing problems in the tubing and pump. We did an initial treatment and because of the drip gas making the paraffin dried up and hard we decided to only leave shut in for a day. Well the tired pump gave out and he could not get a rig for about a week. Once they pulled the pump and replaced it plus move the tubing up 5 feet, we started the well back up. The producer was amazed at the iron sulfides coming out in solution. He said he had not seen any iron sulfides before. That along with the thick paraffin coming out he did not know what to think. Our distributor talked to him and told him this was pretty normal and you will see in a couple of days. Well he has now done a second treatment after seeing he took up production to almost 2 bpd of oil. He has also had an increase in water which he has not seen in years. Producer is pleased and waiting to see if second treatment does as well. He is talking about adding several other wells when the results are in on the second treatment.

## Michigan

### Herr Dotty

- ❖ Producer has severe asphaltene build up in formation causing a very inconsistent production rate. It varies from 10 to 30 barrels of fluid a day. We treated with Paraffin Destroyer and shut in for only 24 hours. When we turned the pump back on, clear evidence of Asphaltenes coming up. Fluids were checked the next morning and 30 barrels were pumped in 15 hours. Two days later another sample was taken and the fluids were viscus as pudding. After the sample had settled over the weekend, the separation of oil, asphaltenes and water were 85% oil and asphaltenes. The Paraffin Destroyer treatment has started doing its job and cleaning the formation.

### Mymachod

- ❖ Producer has not had any clear signs of paraffin or mechanical issues with this well. It was treated to see if the formation could be opened up and create more porosity. We treated the well and after 4-5 days signs of paraffin started showing up, nothing in great amounts. The fluid levels increased slightly but the good thing is that the amount of oil has doubled. Oil percentages went from 35% to 70% in samples. We are on our 3<sup>rd</sup> week of the first treatment.



## **Brothers**

- ❖ Treated this well and left shut in for 24 hours. It has been a troublesome well to get going. It took about 10 strokes and we were pumping. After about 10 minutes the pumper heard a whooshing sound at the valve in the flowline. He said he had never heard that before and opened up the valve from 30% to about 70%. After another few minutes he opened it 100% and said they had never been able to open the line that far without losing pressure.

## **Pennsylvania**

- ❖ We have a producer in the Alleghany National Forest in Northwest Pennsylvania, who has shallow wells (approximately 1,500 feet) and they are in his words prolific paraffin producers. He also has slim hole tubing which leaves virtually no clearance. We did our standard treatment of 10 gallons of Paraffin Destroyer but only left it closed in for a little more than a day to make sure we did not cut loose too much paraffin for the pump to bring up the slim hole. The first two weeks showed a doubling in the volume he could pump plus his pump takes a full stroke now. His production has increased by 50% and his run time is cut in half. Second application, we left the well shut in for 3 days and it is now pumping for 2 hours and pulling up a 400% increase in fluids. 45% oil, 25% paraffin and 30% brine.

## **Oklahoma**

### **Miss. Chat Well**

- ❖ Kay County OK.  
Well had severe paraffin build up on rods requiring monthly hot oiling and chemical treatments. Monthly microbial treatment resulted in elimination of both hot oiling and chemical treatments. Pump is able to be pulled without hot oiling.

### **Oswego Well**

- ❖ Woodward County OK.  
Well is pumped under packer, production falls off to near 0 in 60 days requiring pump to be pulled and hot oiled. Well was put on monthly microbial treatment down tubing after unseating pump. Paraffin build up was almost eliminated, production returned to 18bpd.



## **Red Fork Well**

- ❖ Dewey County OK.  
Production fell to 3bpd and would not respond to hot oil treatments. Well was put on monthly microbial treatments resulting in production returning to 7bpd.

## **Osborn Well**

- ❖ McClain County OK.  
Wells are severe paraffin producer, pump change required 5 to 7 days and included stripping rods and tubing and steaming before reinstalling. Wells were put on monthly microbial treatments eliminating paraffin build up. Pump change time reduced to 1 to 2 days.

# **Texas**

## **Canyon Sand Well**

- ❖ Stonewall County TX.  
Wells required constant chemical injection and hot oiling every 3 months and at pump change. Wells are on monthly microbial treatments that have eliminated chemical and hot oil treatments, also extended pump life.

## **Breedlove Field**

- ❖ West Texas  
Treated 2 wells with paraffin Destroyer at separate batteries. One of the wells had a trash problem that kept unseating the pump. The other well had to be hot oiled at least monthly. Treated the well with the seating problem, left it shut in for only one day to see how the well would react and to be on the safe side of not bring up too much paraffin at once. This well was already having problems and we wanted to try to fix it without having to bring in a rig. Next day started the well back up and after about 10 minutes the pump was working normal. The other well started right back up and samples from both wells show significant paraffin. Both wells also showed a doubling of production. About 21 days later the first well was starting to show signs of the pump getting more trash to it we decided to do a second treatment. This treatment was left in for a little over 2 days and the well has gained in both oil and gas production. The second well was treated also a second time without a hitch. Now the producer has increased the number of wells he wants treated and has a program in place to keep adding wells a little at a time as to make sure we do not overrun the batteries.