

DERRICK LIGHTS

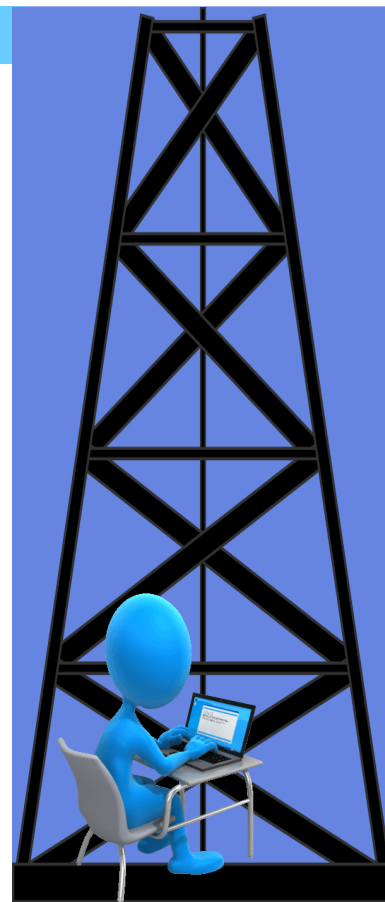


Chemistry

By Gayle Junker

Formation damage in the oil and gas industry has been described as *"The impairment of the invisible, by the inevitable and uncontrollable, resulting in an indeterminate reduction of the unquantifiable!"* Within the pipelines, valves, and pumps used in oil production and processing lurks the continual threat of the formation of scale, paraffin buildup, corrosion of the pipes, and hydrate and/or emulsion problems. It's not something that many of us might give much thought to. In considering these oilfield related challenges, however, we can - on a much smaller scale - compare it to situations like: if we don't change the oil filter or air filter in our car, or we don't occasionally clean out the vent and hose in the clothes dryer, or we don't keep the hard water scale from building up on faucets and in pipes, or - well, you get the point - no maintenance or remediation and we can have big problems. What makes it so much more serious in the petroleum industry is that scale buildup of any type affects the possible loss of oil and gas production, can cause millions of dollars in damage, has the possibility of adverse effects on the quality of air in and around an oil field, and even poses safety risks for the employees.

We are fortunate in the oil industry to have knowledgeable, well-educated and talented people such as **Laura Christian**, who came and spoke at our June dinner meeting. Laura has a Bachelor of Arts in Science with a major in Chemistry and a Master's in Microbiology from OSU. She has worked in the Oil and Gas industry for over 25 years, first with a microbial vendor called Bio Tech for several years, moving to the operator side in 2012 to work with XTO Energy as an *Operation Specialist*. Her focus is on chemical treatments that deal with the different types of 'threats' - buildup, formation and corrosion to the oilfield's pipelines, valves and pumps.



Knowledge Empowers You:
Knowledge is the **KEY** to
our success



CLUB MOTTO

"GREATER KNOWLEDGE -
GREATER SERVICE"

CLUB PURPOSE

The purpose of the Club shall be to promote the education and professional development of individuals employed in or affiliated with the petroleum, energy, and allied industries and to educate the general public about these industries.

ADDC MISSION STATEMENT

To enhance and foster a positive image to the global community by promoting the contribution of the petroleum, energy and allied industries through education, by using all resources available.



Desk & Derrick Club of Oklahoma City

Club Information • www.deskandderrickokc.com
 Association Information • www.addc.org

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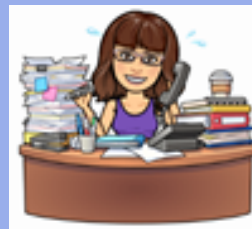
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PARLIAMENTARIAN

Kaye Dunham
XTO Energy Inc

From the Editor, Ann Mefford



Welcome to Summer

Summer is so busy for everyone. We are rushing to get ready for vacations, family weekends, weddings, birthdays, sporting events, conventions and just life in general. Its easy to get stressed when there seems to be so many things that require our time. It is really important to stop and take a deep breath and reflect on what is really important in our daily lives.

My family planned a short vacation together and I was making list and planning everything. Then I realized my family was just as big a part of the trip as the trip itself. So I told my family to get together and plan it. My stress level dropped to zero and then all I concentrated on was just to enjoy the time I had with them. We did the cooking and clean up together, fished, swam and played games but the best part was spending time talking and being unplugged from everything.

So slow down sit on the porch with an ice cold coffee and enjoy the flowers. Laugh at the silly things in life and just smile knowing you are blessed each day.

Smile everything is going to be okay!

Ann

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WEBMASTER

TBD

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COMMITTEE
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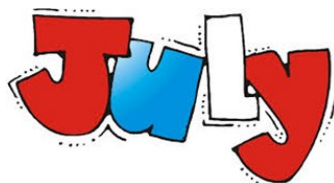
Vicki Williams
Panhandle Oil and Gas Inc

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Panhandle Oil and Gas Inc

Connie Price
Retired

PARLIAMENTARIAN

Kaye Dunham
XTO Energy Inc



I hope that each of you had a wonderful 4th of July holiday with friends and family. I spent the day with a great group of friends while our kids enjoyed swimming in the pool!

We had a fantastic time at the Chickasaw Cultural Center at the end of June. 14 members and guests were in attendance including two members from the Dallas Club!

We missed several last month at the June membership meeting. Laura Christensen with XTO provided tons of information regarding the chemical side of the industry.

The July meeting is being hosted by the Education Committee. We will be watching a brief video titled Types of Ownership in Mineral Rights Leasing.

Be sure to get your reservations in to Ann Nguyen at anguyen@eprod.com by Friday, July 19 at Noon.

A reminder that Convention packets have been sent out. Be sure to get yours turned in along with your hotel reservation made!

Please feel free to reach out to me or any of the Board Members with new ideas, questions or concerns. We are here for you!

As always, you are the KEY to our success!

Sincerely,

Jamie

**Terry Ligon**

2019 ADDC President

HC 75, Box 495

Eliasville, TX 76481

940-550-5168

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Merrion Oil & Gas

July 2019

As we approach the second half of 2019 and the summer months of vacations, we must not let our passion for ADDC wane. Let's all continue the drive to increase our membership and spread the word about Desk and Derrick.

We are proud to announce we have 1096 members; this is exciting as we budgeted for 1080 members. We are over our projected number of renewals for our budget this year.

The 2019 Nominating Committee has worked very hard this year and I am happy to present the nominees for the slate of officers for 2020:

President-Elect

Evelyn Green

Secretary

Casi Nichols

Treasurer

Philana Thompson

Maggi Franks

The forms and photos of the nominees were reviewed by the members of the 2019 Nominating Committee and were approved as received.

We are drawing near to our 68th Annual Educational Conference and Convention. I hope you have all sent in your registrations and are looking forward to a great experience in Kansas City. The Central Region is working very hard to make this a memorable time for everyone.

We have THREE free seminars --- "Programs! Programs! Get Your Programs Here!", "Helpful Hints for Small Clubs" and "Social Media Marketing: Facebook and Twitter". I think you will find these seminars informative and entertaining. And, it never hurts to learn more about this association and what it takes to make it run. It will be a great learning experience.

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Central Region Director's Newsletter



July 2019

Connie Bass
Central Region Director

Abby Johnson
Butler County

Barbara Chapman
Dallas

Shelly McCool
Enid

Judi Jones
Fort Worth

Lanette Mills
Graham

Sharon Hiss
Great Bend

Jamie Sabata
Liberal

Pat Blanford
Lone Star

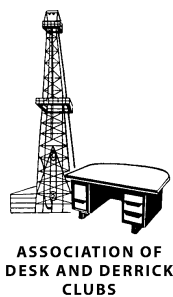
Jamie Gilmore
OKC

Teri Swarengin
Red Earth

Jill Klein
Tulsa

Abby Bock
Wichita

Rena Shaffer
Wichita Falls



Happy 4th of July everyone:

So hard to believe that this year is already halfway over and Convention is just around the corner. Our highlighted president this month are Jamie Gilmore, OKC Club and Sharon Hiss Great Bend Club.

- Jamie Gilmore, OKC president started out as a Sr. Supply Chain Analyst for Devon Energy however she is now self-employed. She and her husband Jason have two children, Libby (13) and Lawton (10). Her hobbies are baking and reading. Her plans for the OKC club is to maximize club participation and draw people out who need encouragement. She also sees this as a major learning opportunity.
- Sharon Hiss, Great Bend president is store manager of Gressel Oil Field where she is in charge of inventory, pricing and delivery as well as taking care of her customers. She stated that she and husband Rick do not have children however she claims her nieces Vicki, Amy and Billie as her "kids". Sharon's hobbies are gardening and watching their cattle under the tree enjoying nature. Being a longtime member she still wants to gain more knowledge about the energy and share her experience and leadership with others.

Reminder: Convention will be in **Kansas City, MO September 25th through 28th** at the Marriott Kansas City Country Club Plaza. I will be sending out the online registration information to the presidents. Information is in the registration packet for registration by phone. Looking forward to seeing everyone there.

And as always remember this--- "The Key to education is the Willingness to Learn"

Sincerely,
Connie Bass
2019 Central Region Director

Continued from Page 1

Laura described some of these 'threats' – think 'sludge', 'slime', 'hard as rock blockage' – which are commonly referred to as:

▪ Scale, the 3 most common being

- Calcium Carbonate, which tends to form in sheets and hold the shape of the pipe



- Calcium Sulfate, forming crystals on the tubing



- Barium Sulfate

Scale: A deposit or coating formed on the surface of metal, rock or other material. Scale is caused by a precipitation due to a chemical reaction with the surface, precipitation caused by chemical reactions, a change in pressure or temperature, or a change in the composition of a solution.

Schlumberger Oilfield Glossary



▪ Biproducts of scale formation include:

- Iron Sulfide

- Hydrates



Hydrates: A crystal looking formation made up of water and gas molecules. They are formed when these two elements (water and gas) are combined with high pressure and low temperatures. Once the hydrate is formed they will continue to build upon one another to create a huge build up and even complete blockage of a line.

Amy Jerina, Croftsyste.ms.net blog



- Salt – An interesting bit of information that we learned from Laura was that sea water has about 3% salt, whereas the water in a well can contain a salt content of up to a 20%!

- Paraffins/Asphaltene - organic deposits forming both in and around the wellbore



- Corrosion



Continued from Page 7

Continued from Page 4

Be sure you get your official Credentials Report sent in for your delegate and alternate so that your delegate will be eligible to vote at the convention. This form must be sent in to your regional Credentials representative and on record so that your delegate can vote for you, the member.

I wish each of you a great summer! Happy Canada Day on July 1st to our Canadian members and Happy Independence Day on July 4th to our American members.

--Sometimes in the waves of change we find our true direction.-Unknown

Terry Ligon

Continued from Page 6

As you can see from the photos, these formations can cause a lot of problems when trying to keep fluids moving. In her presentation, Laura shared a picture of the Periodic Table – ah, the memories! (If you were a budding scientist you may have even recognized some of the chemical terms previously mentioned – like Calcium Carbonate (CaCO_3).)

Laura mentioned that the elements in the 2nd column usually cause the most problems in our wells.

Here's the good news! Laura told us about many chemicals that are used in the oilfields for the purpose of control and remediation of these damaging formations. These chemicals, used in the right combinations and amounts help decrease pipeline equipment blockage and failures, thus eradicating the reduction of flow *-and-* sometimes even increasing the oil and gas productivity. Many of the chemicals used act as inhibitors to actually keep the buildup problems from happening in the first place. In what combinations, how much, and how they all work would take several classes in Chemistry; therefore, listed below is a summary of many of these chemicals used by Laura and her team, along with a few definitions or explanations to (hopefully) help those of us who were *not* budding scientists!

▪ Oilfield Chemicals

- Scale Inhibitors
 - Almost every inhibitor has a phosphate
 - A **phosphate** is a 'salt of phosphoric acid'.²
- Scale Remediators
 - Acid – Calcium Carbonate
 - Base, then Acid – Calcium Sulfate
 - Physical Removal – Barium Sulfate
- Iron Control
 - Acid
 - THPS (tetrakis(hydroxymethyl)phosphonium sulfate)
 - More Acid...
- Hydrate Inhibitors
 - Methanol
 - Glycol
- Hydrate Remediation
 - Methanol
 - Warm Water
 - Heat
- Corrosion Inhibitors
 - Amines
 - An **amine** is a 'molecule which has a nitrogen atom that can behave as a base'.³
- Scavengers



Acids are molecules that can split apart in water and release hydrogen ions. **Bases** are molecules that can split apart in water and release hydroxide ions.

Scientists use the pH (*the hydrogen ion concentration in a solution*) scale to measure how acidic or basic a liquid is. The scale is a number from 0 to 14. Water has a pH of 7 because when water breaks up, the split is equitable into one hydrogen ion for every hydroxide ion.
dummies.com/education/science/biology

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- Paraffin
 - Solvents
 - Dispersants
 - Heat
 - Mechanical/Movement
- Asphaltene Control
- Biocides
 - 'Biocides are also known as disinfectants, preservatives, sterile and, anti-microbial agents and antiseptics. The strict definition of 'biocide' is: it will kill living cells.'⁴
- Salt Inhibitors



Rods treated
to remove
paraffin
buildup.

Compare with
this!



This is a picture of a type of setup that helps get chemical where it is needed in a well to help address scale, corrosion, paraffin, hydrate, or emulsion problems.

Monitoring



- Scale
 - Water Analyses
 - Presence of Solids in Valves
- Corrosion
 - Water Analyses
 - Coupons
 - Csg/Tbg psi
 - Loss of Production
- Paraffin
 - Pressure Changes
 - Presence of Solids in Valves
 - Loss of Production

Regular monitoring of whatever method is used to treat, remediate and/or inhibit scale formation assures a proactive approach in managing the long-term integrity of our pipelines. Various methods used for monitoring are shown in the picture to the right.

We are grateful for the sacrifice of Laura's time and the preparation it took to come and share this information with our club. The focus that she, as well as others in her field place on treating specific pipeline and gas processing issues is crucial to the oil industry, and we applaud their hard work in helping ensure that everything flows the way it should, that production is successful and profitable, and that precautions are implemented to ensure the safety of all workers involved.

(A special thanks to Laura for providing most of the pictures and all the lists of chemicals.)

¹ Bennion, B., "Formation Damage—The Impairment of the Invisible, by the Inevitable and Uncontrollable, Resulting in an Indeterminate Reduction of the Unquantifiable!" Journal of Canadian Petroleum Technology, Vol, 38, No. 2, February 1999, pp. 11-17.

² Simple English Wikipedia

³ Simple English Wikipedia

⁴ Oilfield Wiki



Marcy Ebert, Connie Price and Marsha Gentry enjoying another great field trip.



PRESERVING A CULTURE

THE CHICKASAW CULTURAL CENTER

By: Connie Price

The latest field trip for our adventurous Oklahoma City Desk & Derrick Club members was to visit the Chickasaw Cultural Center in Sulphur, OK. Some members of our club and two from our newly aligned region club, Dallas, TX, clambered into cars and SUV's for the journey to Sulphur. It's always fun to drive to an Oklahoma destination, take in the scenery and the Sonic drive-ins!

The Center will surely earn a place in our state history as a destination everyone should visit and enjoy. It offers a state-of-the-art presentation of the Chickasaw heritage and how it is being preserved. The campus area is indeed beautiful. It offers native wood and stone, water features with copper and glass and floral gardens, including a breath-taking butterfly garden.

The campus is designed with five specific areas:

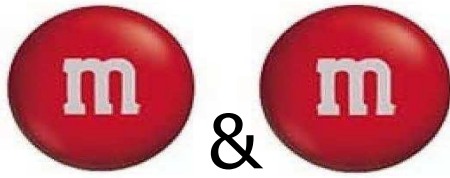
- The Chikasha Poya Exhibit Center - "We are Chickasaw" - this houses an orientation theatre; the Spirit Forest; the Removal Corridor; the Stomp Dance Gallery; Hands on exhibits with language learning stations and video theatres. A favorite is the Spirit Forest with nature surroundings and sounds – not to be missed.
- The Holisso Center is a 20,000 square foot genealogical research library for not only the Chickasaws but also other Southwestern tribes.
- The Anoli' Theatre – "To tell" - is home to one of Oklahoma's largest screens and features native and contemporary films.
- The Traditional or Living Village depicts how Chickasaw ancestors lived before removal to the Indian Territory, including buildings with thick walls and thatched roofs. Also displayed are basic survival skills, domestic chores, art and spirituality.
- AAPISA Fine Art Gallery - "A place to see" - this is one of the first stops on the campus. This gallery houses fine art and exhibits featuring wood, copper and stone.

In addition to the centers, there are fine gift shops with American Indian art, crafts, jewelry and beaded items, some designed by Chickasaw artists.

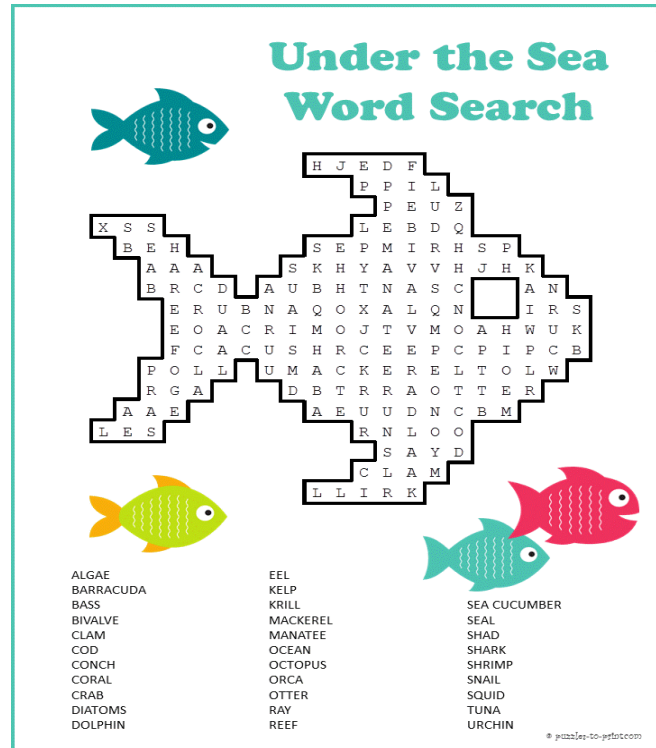
A special treat was a viewing of the Stomp Dancers. An actual presentation was given outside and centered in a circle. The dancers were Native American and wore native clothing and performed with Chickasaw chants. Several dancers wore leg ornaments which consisted of hollow turtle shells and milk cans filled with river rocks to provide the noise rhythm needed for the dance.

At the AAIMPA Café - "A place to eat" - we were also treated to samplings of Native American food being prepared fresh while we watched by three outstanding chefs. The fun trip ended with lunch in Sulphur at the Rusty Nail winery.

The Chickasaw Cultural Center is a welcome addition to other Oklahoma state attractions. It is well worth the time to take an educational look at the Chickasaw culture and history.



Fun Page



IT'S HOT!!

Q: What does a bee do when it is hot?

A: He takes off his yellow jacket.



Q: Which is faster, heat or cold?

A: Heat, because you can catch a cold.



Q: What do you call the Robin Williams movie about a hot California summer?

A: Mrs. Droughtfire.



Q: What part of the fish weighs the most?

A: The scales.



JULY/AUGUST IMPORTANT DATES

July 20 National Lollipop Day



July 21 National Junk Food Day



July 24 National Drive-Thru Day (to get junk food)

July 25 National Wine and Cheese Day

July 2 National Lasagna Day

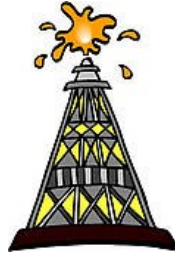


Aug. 3 International Beer Day



Aug. 5 National Underwear Day (whaaaat?)



Lucky**Strike!**

Birthday ladies Jamie Gilmore and Ann Mefford



Marsha Gentry receiving the
50/50 winnings from
Ann Mefford



HAPPY BIRTHDAY



July

07/10 Connie Price
07/29 Debby Bond

07/23 Martha West

August

08/11 Vicki Williams
08/23 Debi Sheline

08/23 Charlene Brewer
08/30 Kelsee Geringer

**68th Annual ADDC Convention and
Educational Conference
September 25 - 28, 2019
Marriott Country Club Plaza
Kansas City, Missouri**



REGISTRATION DEADLINES:

Members/Guest: Early Registration

Postmarked prior to August 1, 2019.

**Late Registration: \$275.00 Postmarked
after August 1, 2019.**

**Silent Auction July 23, 2019
Bring your goodies and Bid ! Bid! Bid!**



July 23, 2019 Membership Meeting

River Oaks Golf Club, 10909 Clubhouse Road, Edmond, OK 73013

Cash Bar at 5:15 p.m., Dinner & Meeting at 5:45 p.m.

Cost \$26.06 Meeting Only: No Charge

Salad with ranch or raspberry vinaigrette

Chicken Cordon bleu

Rice Pilaf

Steamed Broccoli

Strawberry Shortcake

Coffee & Iced Tea

July meeting hosted by our Education Committee.

Video -Types of Ownership in Mineral Rights Leasing.


Reservations must be received by noon on Friday, July 21 , 2019.

Payment Must Be Made For Reservation

Send Reservations to: Ann Nguyen

E-mail: anguyen@eprod.com

July 2019						
◀ June						August ▶
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 Canada	2	3	4 Independence Day 	5	6 
7	8	9	10	11	12 Due Board Reports Bulletin Articles	13
14	15	16 Board Meeting	17	18	19	20
21	22	23 Members Meeting Silent Auction	24	25	26	27
28 	29	30	31	Notes: 		

August 2019						
◀ July						September ▶
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16 Due Board Reports Bulletin Articles	17
18	19	20 Board Meeting	21	22	23	24
25	26	27 Members Meeting	28	29	30	31