



Western Energy Products and Services

Challenger PDC Reamers



Alaskan Energy
Resources, Inc.

Who We Are...

At Western Energy Products and Services we are not new to the oil industry. Owned and operated by Alaskan Energy Resources, Inc., Alaska's "point of contact" for services and technologies for more than ten years, we have a history as a premier provider.

Western Energy Products and Services (WEPS) was formed in early 2011 to expand and provide PDC reamer services to the lower 48 states.

With office and support facilities located in Anchorage, Alaska, Roosevelt, Utah, Denver, Colorado, Dickinson, North Dakota and Houston, Texas, WEPS has a complete engineering support team to offer our customers both in-house and on-site support engineering. Our employees have an average of more than 20-plus years in the Oil Industry, with a full understanding of, and excellence in, drilling operations.



***What is the cost of not getting
liner / packers to TD?***



Which is better? A dedicated clean out reamer run or ream while drilling ?

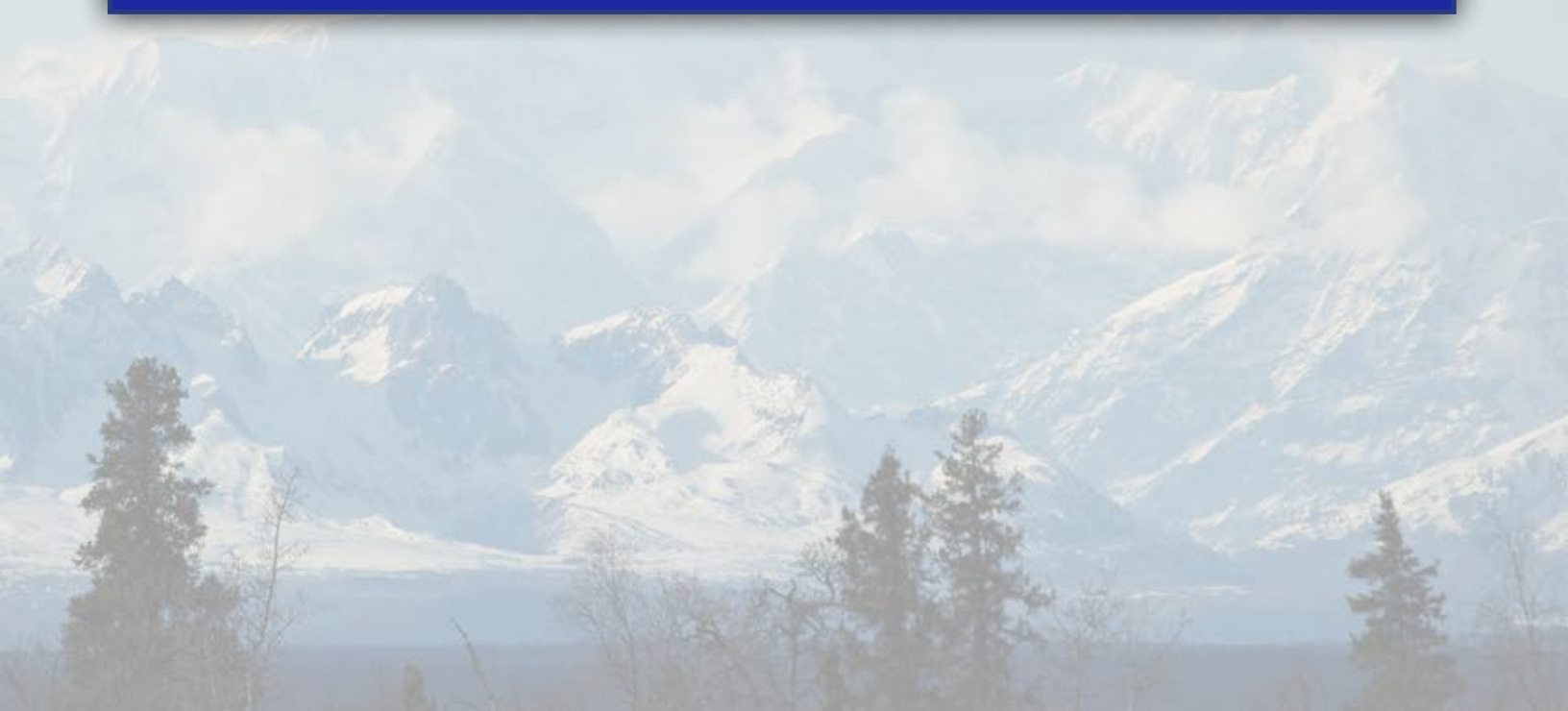
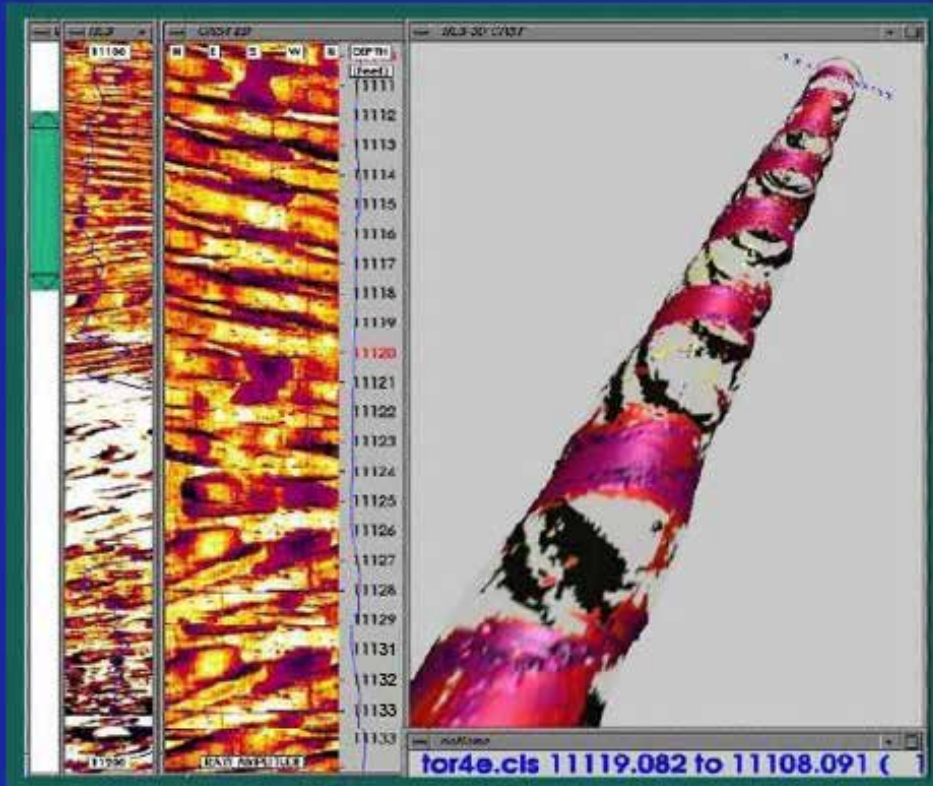
Could you go in and renovate the house below (located in Ward County)?

Dedicated clean out run is an after the fact situation - ideally we would like that nice smooth lateral to start with ie the new home - skip the renovation.



The Importance of Hole Quality

Hole Spiralling – Imaging



Are All Reamers Created Equal?



WEPS Challenger PDC Reamer

Low / Manageable Torque

- *PDC cutters set slightly lower than tool OD*
- *No-go Gauge ring passes over PDC cutters and stops on TCI cutters*
- *Reduces torque by having PDC cutters smooth ledges but not drilling new formation*
- *Ability to drill out of casing and only have flat / mesa top TCI cutters in contact with inside of casing during drill-out.*



WEPS Challenger PDC Reamer

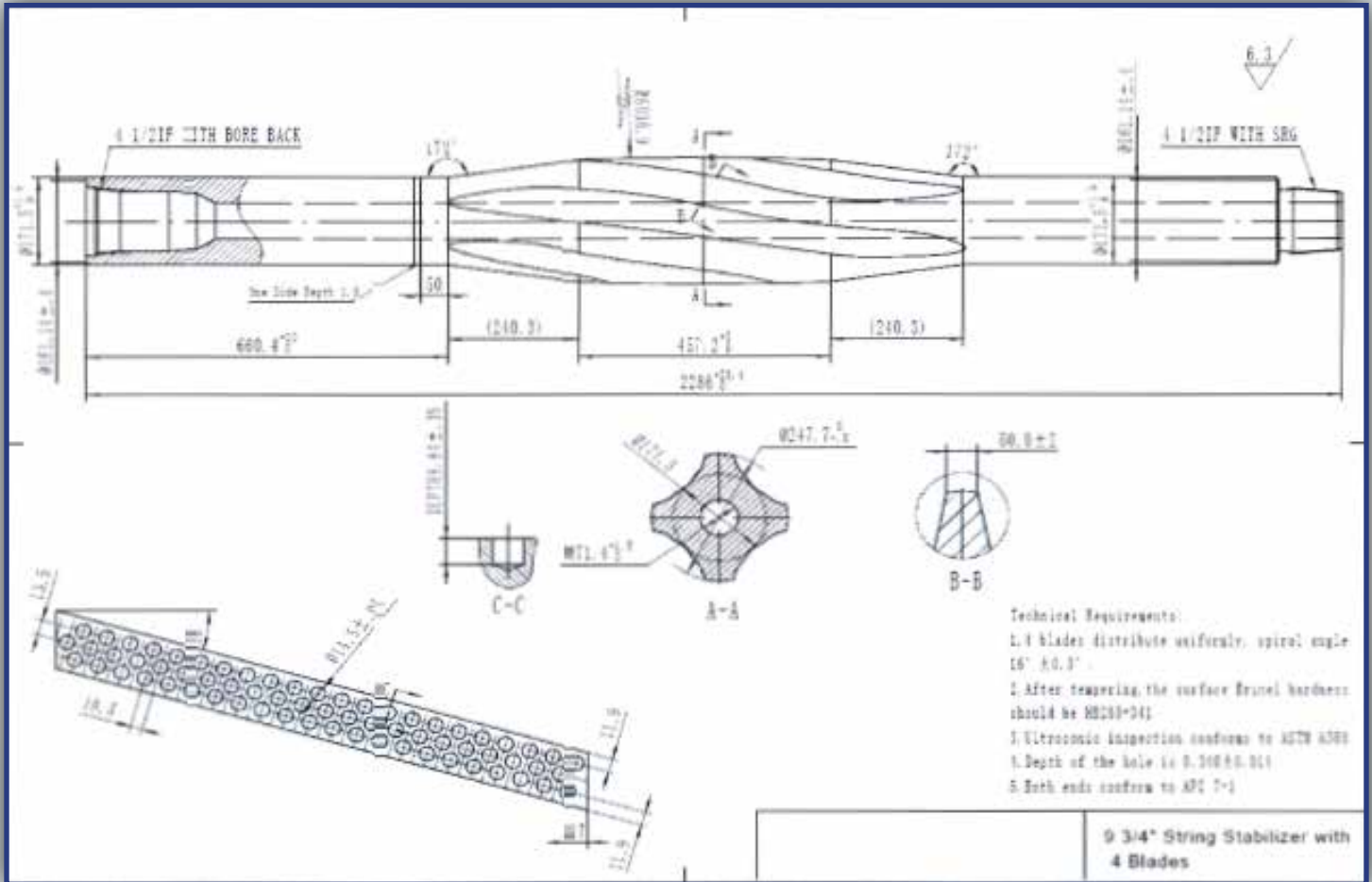
Improved Sliding / Steerability

- * Flat / mesa top TCI profile cutters – improved sliding operations*
- * Wider blade profile – improved sliding operations*
- * Decrease in blade spiral for increased junk slots / flow channels and to improve sliding operations.*



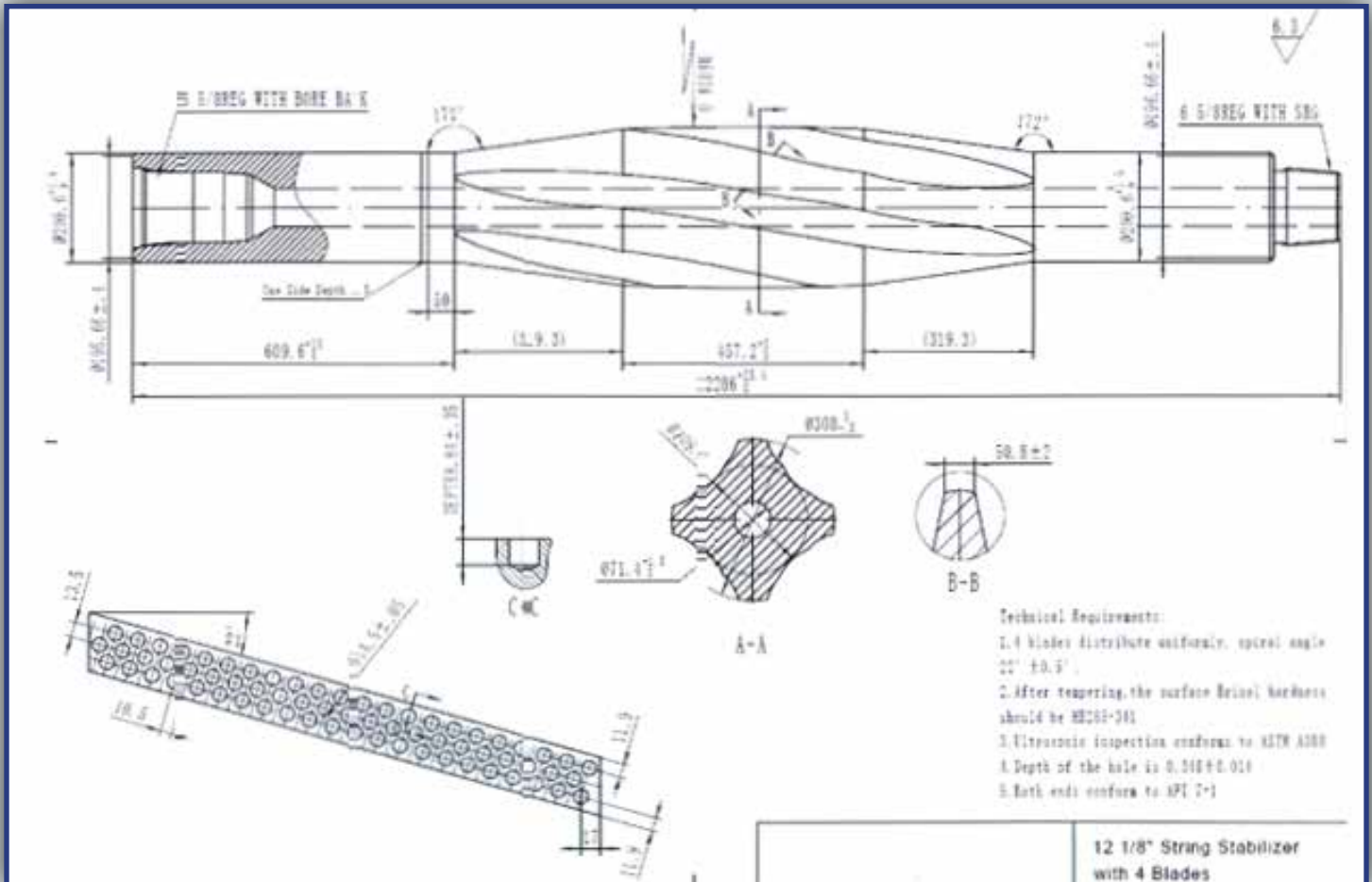
WEPS New Designs / Sizes

9-3/4" OD Challenger PDC Reamer Tool



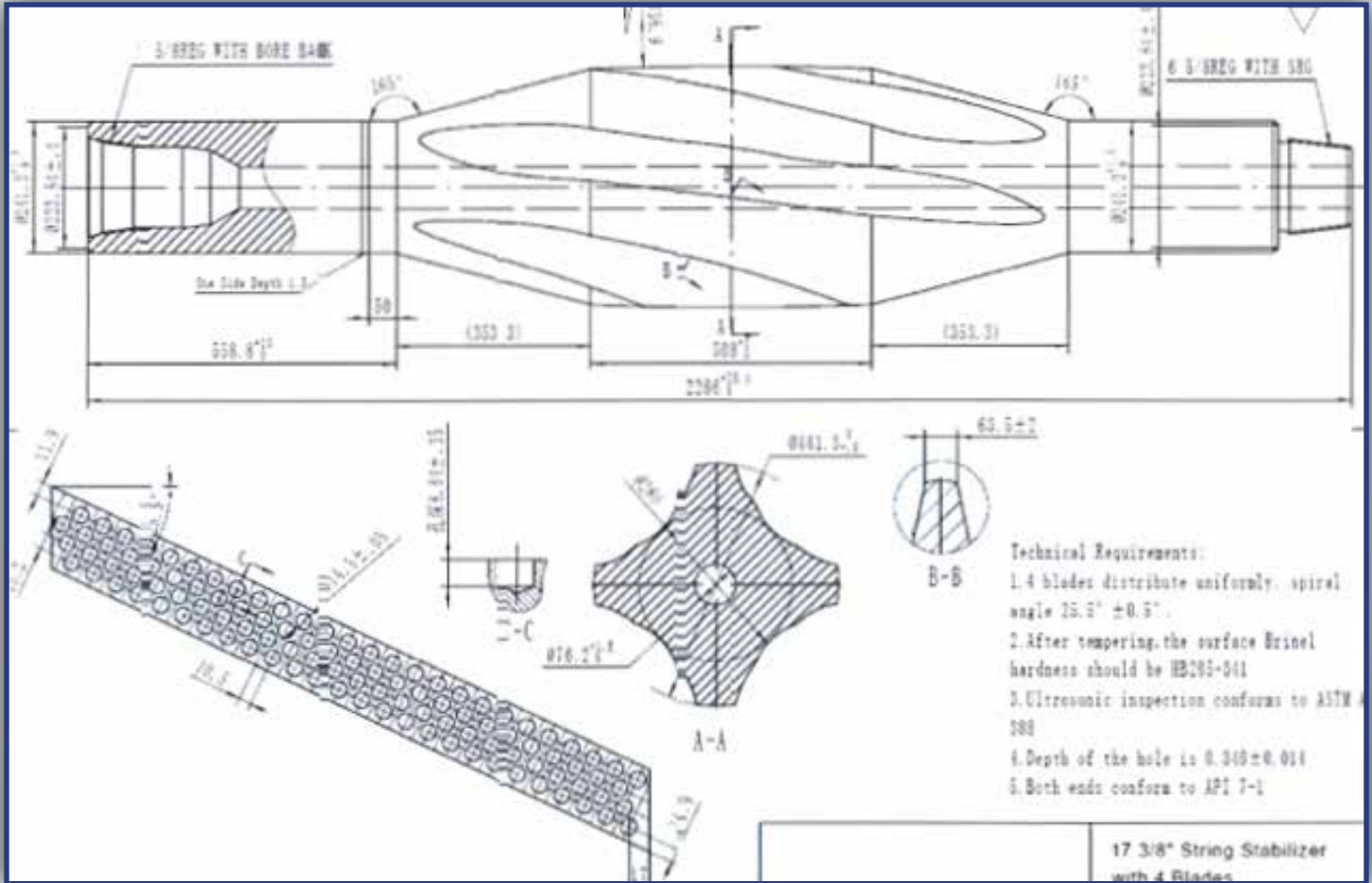
WEPS New Designs / Sizes

12-1/8" OD Challenger PDC Reamer Tool



WEPS New Designs / Sizes

17-3/8" OD Challenger PDC Reamer Tool





Western Energy Products and Services

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Alaskan Energy
Resources, Inc.

Efficient • Responsive • Timely
Customer Oriented • Innovative
Professional • Safety Conscious
Technologically Advanced Operations
24/7 365 Days a Year
Significant Oilfield Experience