

- ERD Database and Visual
- Your Name



Speaker Bio

- Gibson Reports
- Exp: Enough to be Fired Twice and Laid off 3 times
- No PhD No Masters and a Bad GPA
- Austin, Texas
- No specialties

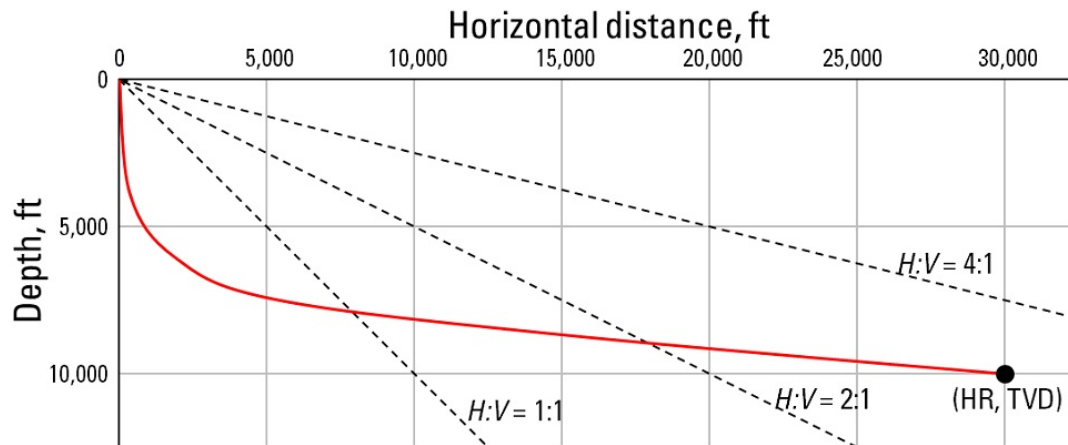
ERD ????

ERD Database

By
David Gibson

Abbreviation for extended-reach drilling. Mobil Oil Company first used this term in the early 1980s for drilling directional wells in which the drilled horizontal reach (HR) attained at total depth (TD) exceeded the true vertical depth (TVD) by a factor greater than or equal to two. Extended-reach drilling (ERD) is particularly challenging for directional drilling and requires specialized planning to execute well construction.

Since the term was coined, the scope of extended-reach drilling has broadened and the definition, which is now more flexible, includes deep wells with horizontal distance-to-depth, or $H:V$, ratios less than two. The drilling industry's ERD database classifies wells, with increasing degree of well construction complexity, into low-, medium-, extended- and very extended-reach wells. Construction complexity depends on many factors, including water depth (for offshore wells), rig capability, geologic constraints and overall TVD. For example, a vertical well with TVD greater than 7,620 m [25,000 ft] is considered an extended-reach well. Also, depending on the conditions, drilling a well in deep water or through salt may be classified as ERD even if the well's horizontal extent is not more than twice its TVD.

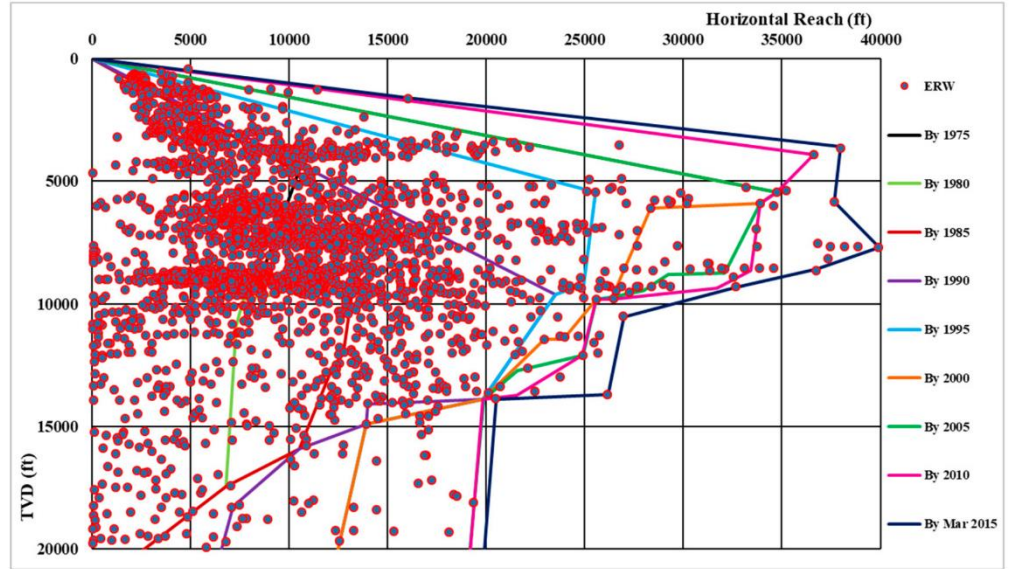


Schematic of a highly deviated extended-reach well trajectory (red). The dashed lines indicate ratios of horizontal distance to depth ($H:V$). Conventionally, the $H:V$ ratio of an extended-reach well's horizontal reach (HR) to its true vertical depth (TVD) is greater than or equal to 2. In the example shown, the $H:V$ ratio of the extended-reach well's HR to its TVD is 3:1.

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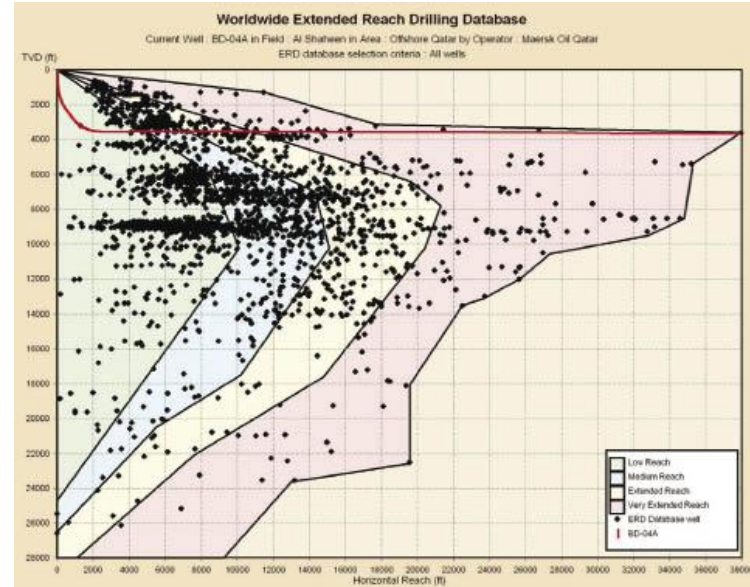
The Industry ERD Database was originally developed in the 1990's by BP in Sunbury UK as a tool to illustrate the company's progress and achievements in the field of Extended Reach. What was once an internal database later morphed into a public tool for companies to share and compare their wells against other operators' achievements. The database was structured to allow convenient filtering to allow comparison between local and global achievements.



History

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In the early 2000's K&M Technology Group introduced the concept of regions of relative complexity within the ERD database. A fuzzy logic was used as rational to determine 4 different relative complexity boundaries (Low, Medium, Extended, and Extreme reach) that keyed in on Reach/TVD ratio, total reach, and TVD. These regions are often used by Operators and Service companies alike to judge how difficult a planned / upcoming well is likely to be, and assign appropriate resources in the planning phase. Around the same time that complexity regions were introduced users also started to filter the database by water depth in order to gain perspective on the relative complexity introduced in off shore and deep water environments.



In 2015 the data base fell was no longer being updated. In 2018 the database was turned over to the IADD and a steering group was created to reignite the data set.

The result was ERDdata.com

A systematic way to enter new wells into the data set ensuring the best quality data to be visualized.

IADD Wells

New Well

Universal Well Id (UWI):	<input type="text" value="Universal Well Id (UWI)"/>
Operator:	<input checked="" type="radio"/> Existing <input type="radio"/> New
Existing Operator:	<input type="text" value="Aera Energy"/>
Country:	<input type="text" value="Afghanistan"/>
Region:	<input type="text" value="No Regions Defined"/>
Field:	<input type="text" value="No Fields Defined"/>
Well Name:	<input type="text" value="Well Name"/>
Spud Date:	<input type="text" value="mm / dd / yyyy"/>
Land / Offshore:	<input type="radio"/> Land <input checked="" type="radio"/> Offshore
Rig Type:	<input type="text" value="Drill Ship"/>
Water Depth:	<input type="text" value="Water Depth"/>
MDBRT (ft):	<input type="text" value="MDBRT (ft)"/>
TVDBRT (ft):	<input type="text" value="TVDBRT (ft)"/>
Max Inclination (Degrees):	<input type="text" value="Max Inclination (Degrees)"/>
Departure (ft):	<input type="text" value="Departure (ft)"/>
Departure Type:	<input type="text" value="Wrapped"/>
Comments:	<input type="text" value="Comments"/>

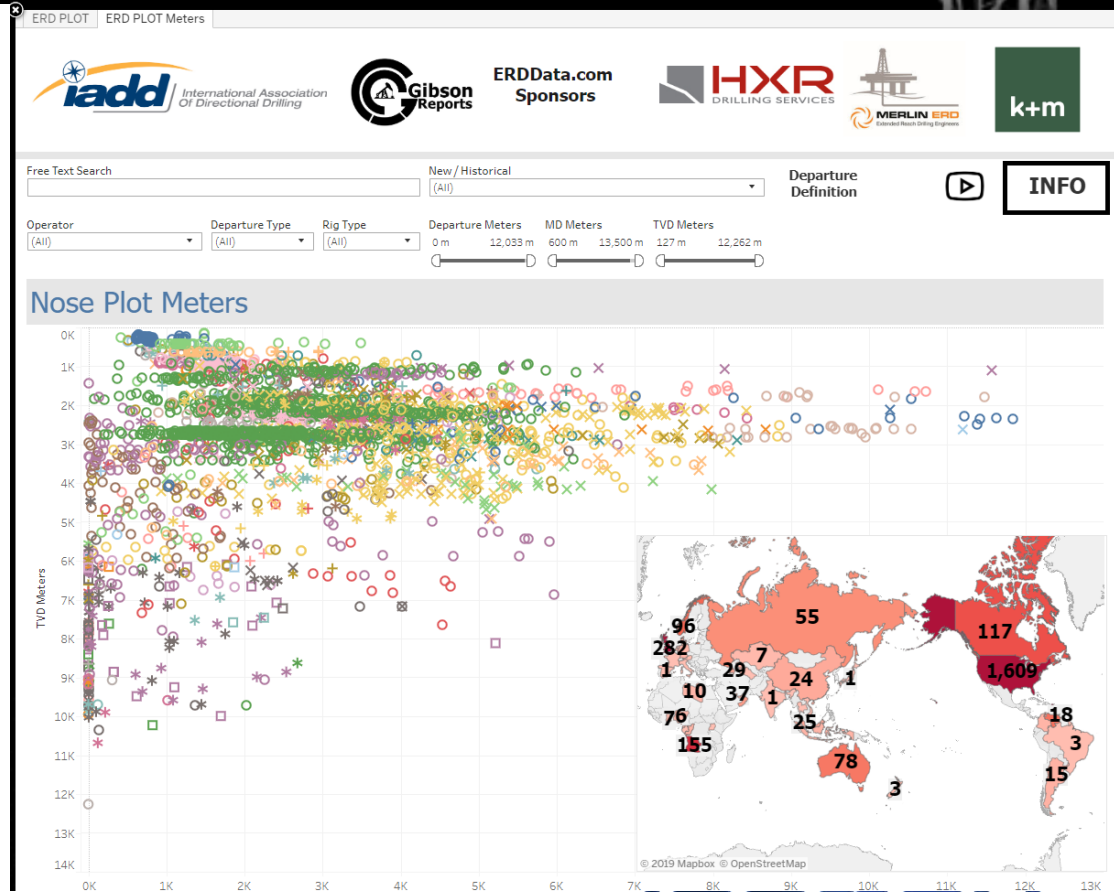
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Visual

ERD Database
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The visual was created using Tableau. Making the “dog nose plot” and data interactive.

Tabs at the top are for both Feet and Meters.



Location

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IADD-intl.org

To enter your wells and or information
please contact

IADD

Or

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