SONARWIRE GLOBAL, LLC

Sean P. McCool
Operations Manager

SONAR SURVEYS

- Sonar Surveys through BRINE
- Sonar Surveys through PIPE & BRINE
- Sonar Surveys through PIPE & PRODUCT
- Sonar Surveys through NATURAL GAS
- Sonar Surveys through CRUDE OIL

SONARWIRE, INC

Industry Standard Accuracy is +/- 5%.

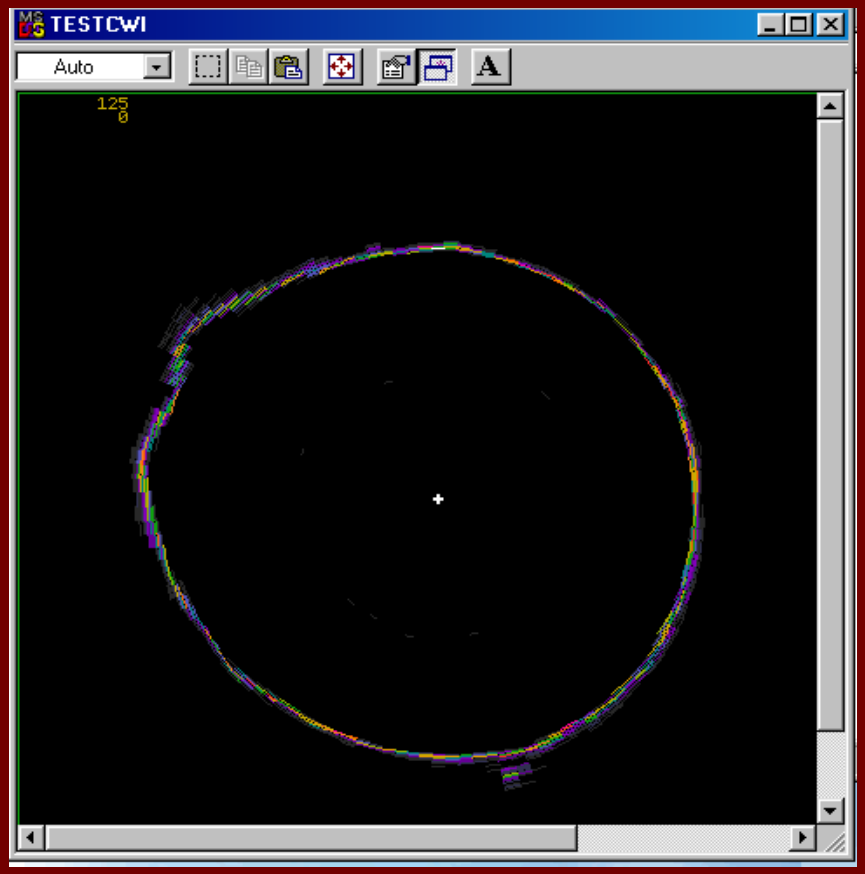
Independent tests of SONARWIRE, INC.
Accuracy of Sonar through CRUDE OIL proven to be +/-2%.
Accuracy of Sonar through NATURAL GAS proven to be +/-1.5%

Sonar Tools

- Centralizer
- Electronics
- Velocimeter
- Orientation Devices
- Motoring
- Acoustic Transducer

Conducting Surveys

- Connect, Initialize, and Verify all systems.
- Lower tool into cavern, find depth reference point.
- Begin survey of cavern, lowering tool, stopping at 1 to 20 foot increments. Data is recorded every 2.8 degrees.



Conducting Surveys

- Take down-angled shots of cavern floor from a pre-determined depth.
- Raise tool to a pre-determined depth to take angled shots of cavern roof.
- Recall and verify any necessary depth stations (this can be done at any time during survey).
- Exit the well.
- Generate a field survey report for customer before leaving site.

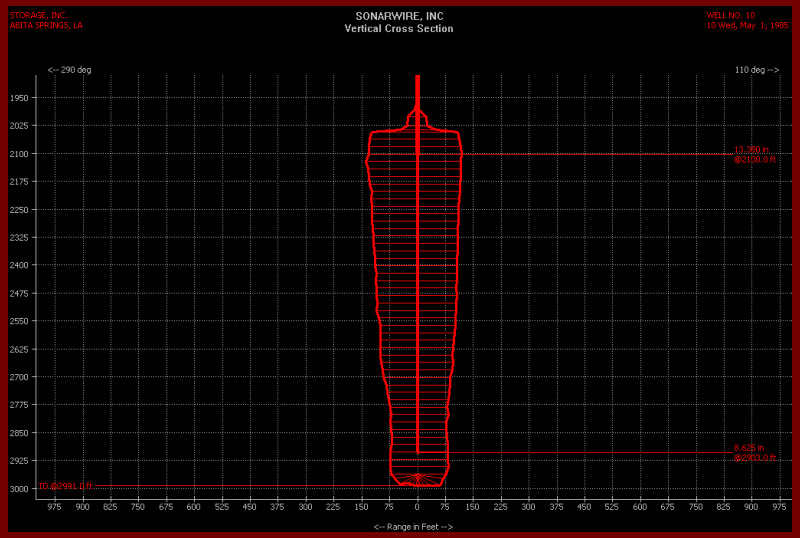
Field Reports

- Volume Table

SONARWIRE, INC. STORAGE WELL NO. 1
ABITA SPRINGS, LA Tue, Jun 17, 2003

Depth	Cubic ft. per ft.	Cubic ft. total	Cubic m per ft.	Cubic m total	Barrels per ft.	Barrels total	Gallons per ft.	Gallons total
1047	443.4	21838.4	12.6	618.4	79.0	3889.6	3317.0	163362.7
1048	442.5	22280.9	12.5	630.9	78.8	3968.4	3310.2	166672.9
1049	441.6	22722.5	12.5	643.4	78.7	4047.1	3303.4	169976.3
1050	440.7	23163.2	12.5	655.9	78.5	4125.5	3296.6	173272.9
1051	439.8	23603.0	12.5	668.4	78.3	4203.9	3289.9	176562.7
1052	438.9	24041.9	12.4	680.8	78.2	4282.0	3283.1	179845.8
1053	438.0	24479.9	12.4	693.2	78.0	4360.1	3276.3	183122.1
1054	437.1	24916.9	12.4	705.6	77.8	4437.9	3269.6	186391.7
1055	436.2	25353.1	12.4	717.9	77.7	4515.6	3262.8	189654.6
1056	435.3	25788.4	12.3	730.2	77.5	4593.1	3256.1	192910.6
1057	434.4	26222.8	12.3	742.5	77.4	4670.5	3249.4	196160.0
1058	433.5	26656.2	12.3	754.8	77.2	4747.7	3242.6	199402.6
1059	432.6	27088.8	12.2	767.1	77.0	4824.7	3235.9	202638.6
1060	431.7	27520.5	12.2	779.3	76.9	4901.6	3229.2	205867.8
1061	430.8	27951.3	12.2	791.5	76.7	4978.3	3222.5	209090.3
1062	429.9	28381.2	12.2	803.7	76.6	5054.9		

- Vertical Cross-Section



Standard Report

- Volume Table
- Maximum Radius Graphics
- Maximum Radii Table
- Average Wall Table
- Short Wall Table
- Vertical Cross-Sections
- Shade Plots
- Long Wall Table

Standard Report Graphics

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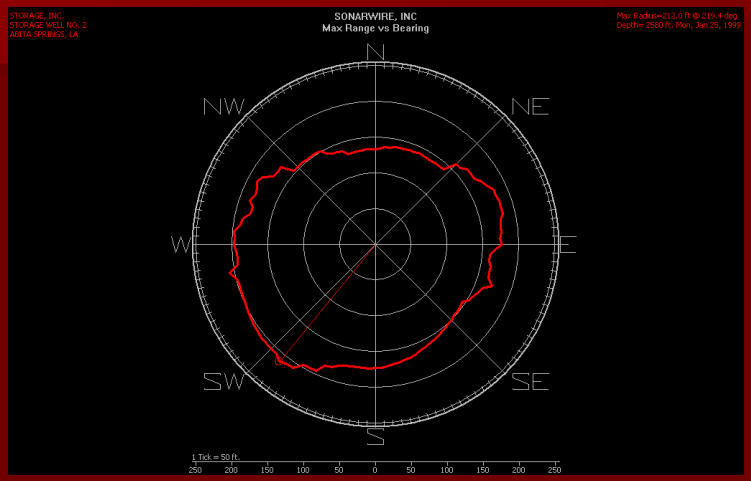

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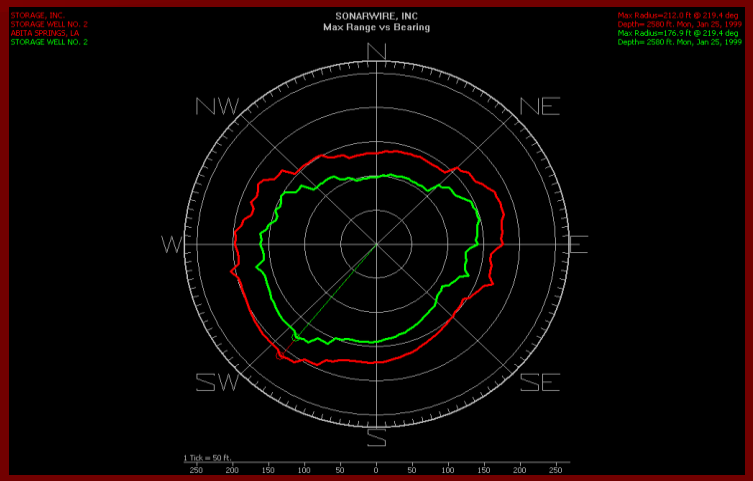

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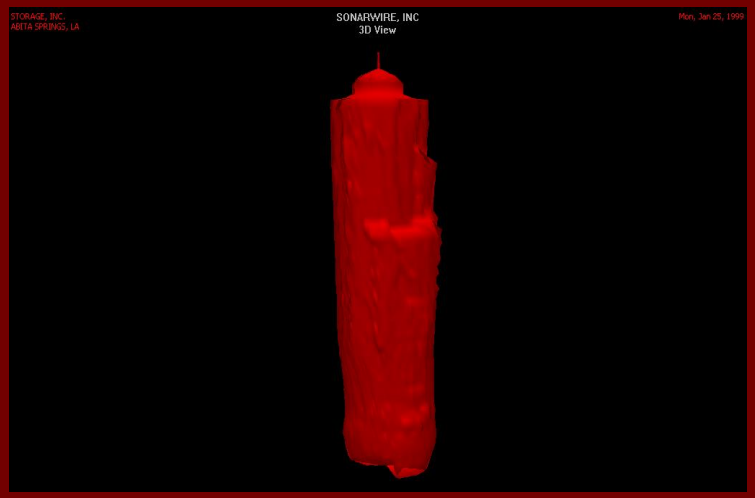

Optional Report Graphics

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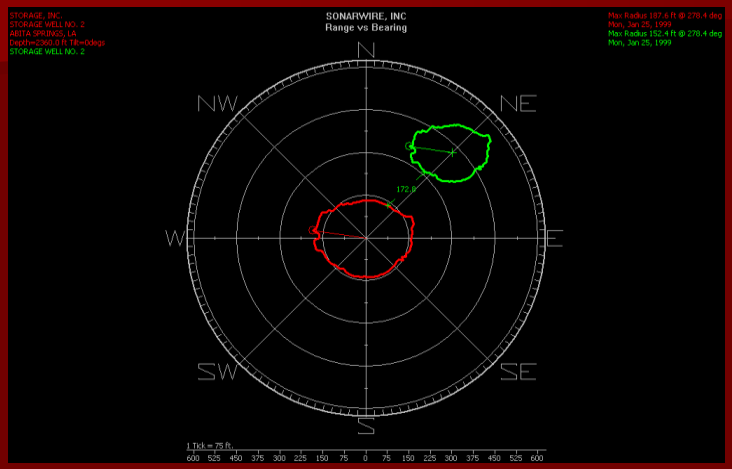

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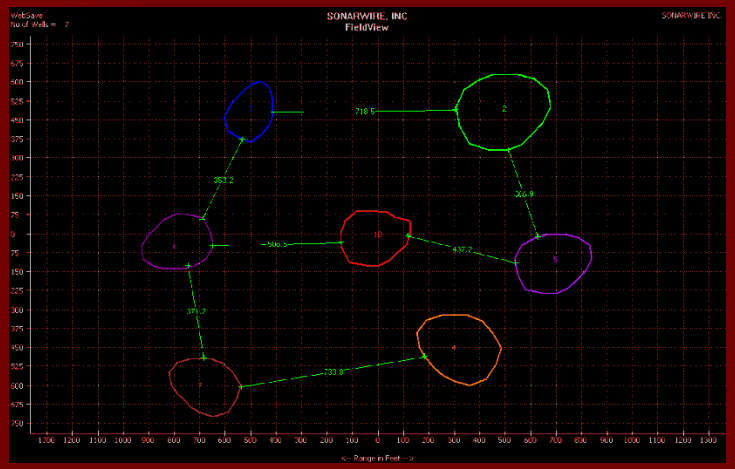

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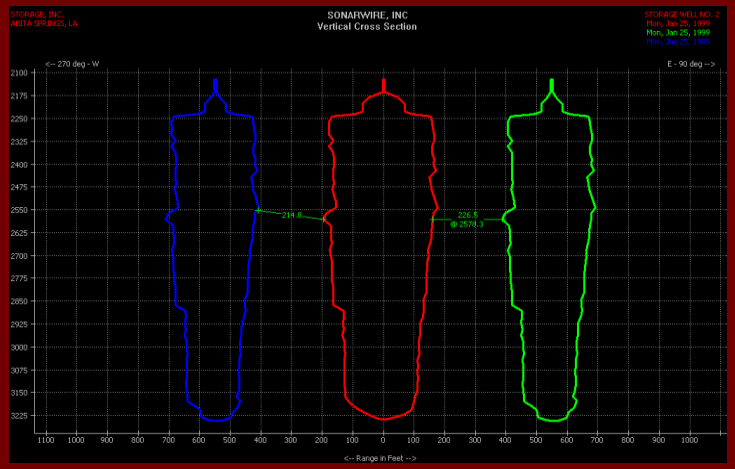

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Providing Quality Sonar Surveys Since 1984

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