[redacted]

P.W.

CALIFORNIA LIQUID GAS CORP. WELL [illegible]
SW/NW Sec. 2-T2N-R1W, Maricopa Co., [illegible]

COUNTY Maricopa AREA 7 mi. W of Glendale LEASE NO. John L. Roach & Arthur E. Baker

WELL NAME CALIFORNIA LIQUID GAS CORPORATION STORAGE WELL NO. 2 Roach-Baker

LOCATION SW/NW SEC 2 TWP 2N RANGE 1W FOOTAGE 2440.0' FNL - 677.64' FWL

ELEV 1087 GR _____ KB SPUD DATE 11-28-74 STATUS GS COMP. DATE 12-30-74 TOTAL DEPTH 3210

workover dates 4/5 to 5/7/89 log: 3229

CONTRACTOR B C & M Drilling Company, Mesa, Arizona 85202

CASING SIZE	DEPTH	CEMENT	LINER SIZE & DEPTH
13 3/8"	127'	200 sacks	
10 3/4"	1590'	1300 sacks	
8 5/8"	1662'	600 sacks	
5 1/2"	2879'	hung	

DRILLED BY ROTARY X

DRILLED BY CABLE TOOL _____

PRODUCTIVE RESERVOIR _____

INITIAL PRODUCTION _____

FORMATION TOPS	DEPTHS	SOURCE L.L.	SOURCE E.L.	REMARKS
Surface	0	270		Surface sand & caliche
	270	357		Sand
	357	510		Sand with anhydrite
	510	950		Sand with shale & slit
	950	1101		Anhydrite
	1101	3210		Salt

ELECTRIC LOGS	PERFORATED INTERVALS	PROD. INTERVALS
Comp. Form Density-2		
Gamma Ray Neutron-1		
Caliper-1		

SAMPLE LOG _____
SAMPLE DESCRP. _____
SAMPLE NO. _____
CORE ANALYSIS _____
DSTs _____

REMARKS Fenix & Scisson, Inc. is agent for California Liquid Gas

APP. TO PLUG _____
PLUGGING REP. _____
COMP. REPORT 1-3-75

WATER WELL ACCEPTED BY _____

BOND CO. Safeco Insurance Company of America BOND NO. 2222218

BOND AMT. $ 5,000 CANCELLED _____ DATE ORGANIZATION REPORT 7-25 & 30-73

FILING RECEIPT 179 LOC. PLAT X WELL BOOK X X PLAT BOOK X

API NO. 02-013-20007 DATE ISSUED 9-4-74 DEDICATION NA

PERMIT NUMBER 627

notified on plat

(over)

DRILL STEM TEST

NO.	FROM	TO	RESULTS

CORE RECORD

NO.	FROM	TO	RECOVERY	REMARKS

REMEDIAL HISTORY

DATE STARTED	COMPLETED	WORK PERFORMED	NEW PERFORATIONS

ADDITIONAL INFORMATION

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

DESIGNATE TYPE OF COMPLETION:

New Well ☐ Work-Over ☒ Deepen ☐ Plug Back ☐ Same Reservoir ☐ Different Reservoir ☐ Oil ☐ Gas ☐ Dry ☐

DESCRIPTION OF WELL AND LEASE

Operator: AP Propane Inc. dba Cal Gas	Address: P.O. Box 28397 Sacramento, California 95828
Federal, State or Indian Lease Number or name of lessor if free lease: John L. Roach & Arthur E. Baker	Well Number: 2 / Field & Reservoir: Storage Well
Location: 2440.0' FNL & 677.64' FWL	County: Maricopa
Sec. TWP-Range or Block & Survey: Sec. 2, T2N, RIW , G&SRB&M	

Date spudded	Date total depth reached	Date completed, ready to produce	Elevation (DF, RKB, RT or Gr.) feet	Elevation of casing hd. flange feet
Workover Start 4/5/89	Complete 5/7/89		1087 GR	1088

Total depth	P.B.T.D.	Single, dual or triple completion?	If this is a dual or triple completion, furnish separate report for each completion.
of cavern Approx. 2900'	N/A	N/A	

Producing interval (s) for this completion	Rotary tools used (interval)	Cable tools used (interval)
N/A		

Was this well directionally drilled?	Was directional survey made?	Was copy of directional survey filed?	Date filed
No	No		

Type of electrical or other logs run (check logs filed with the commission)	Date filed
Borehole Caliper, Cavern Sonar Survey, CBL, Casing Inspection Log	Attached

CASING RECORD

Casing (report all strings set in well — conductor, surface, intermediate, producing, etc.)

Purpose	Size hole drilled	Size casing set	Weight (lb./ft.)	Depth set	Sacks cement	Amt. pulled
Surface	17 1/2"	13 3/8"	54.5#	127'	200	0
Production	15"	10 3/4"	45.5#	1590'	1300	0
Cemented Liner (New)	19"	8 5/8"	32#	1662'	600	0
Hanging (New)	12 1/4"+	5 1/2"	17#	2879'	N/A	N/A

TUBING RECORD

Size (in.)	Depth set (ft.)	Packer set at (ft.)

LINER RECORD

Size (in.)	Top (ft.)	Bottom (ft.)	Sacks cement	Screen (ft)

PERFORATION RECORD

Number per ft.	Size & type	Depth Interval

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Am't. & kind of material used	Depth Interval

INITIAL PRODUCTION

Date of first production	Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump:)

Date of test	Hrs. tested	Choke size	Oil prod. during test bbls.	Gas prod. during test MCF	Water prod. during test bbls.	Oil gravity °API (Corr)

Tubing pressure	Casing pressure	Cal'ted rate of Production per 24 hrs.	Oil bbls.	Gas MCF	Water bbls.	Gas—oil ratio

Disposition of gas (state whether vented, used for fuel or sold):

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Project Manager of the PB-KBB Inc. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

5/31/89
Date

Tim Moran
Signature Tim Moran

PB-KBB Inc. is agent for Cal Gas

Permit No. 627

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Well Completion or Recompletion Report and Well Log
Form No. 4 File One Copy

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator AmeriGas Propane Inc.
2. OIL WELL ☐ GAS WELL ☐ OTHER ☐ (Specify) Storage Well
3. Well Name No. 2 Roach-Baker
   Location 2440.0' FNL and 677.64' FWL
   Sec. 2 Twp. 2N Rge. 1W County Maricopa, Arizona
4. Federal, State, or Indian Lease Number, or lessor's name if fee lease John L. Roach and Arthur E. Baker
5. Field or Pool Name
6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	WEEKLY PROGRESS	☐
FRACTURE TREAT	☐	DIRECTIONAL DRILL	☐	FRACTURE TREATMENT	☐	REPAIRING WELL	☐
SHOOT OR ACIDIZE	☐	PERFORATE CASING	☐	SHOOTING OR ACIDIZING	☐	ALTER CASING	☐
REPAIR WELL	☐	CHANGE PLANS	☐			ABANDONMENT	☐
(OTHER) Mechanical Integrity Test			X	(OTHER)			☐

NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log Form 4

7. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Perform a mechanical Integrity Test on Well No. 2 by the attached procedure. The eest is tentatively scheduled to commence March 3, 1999. During the procedure a "through casing" sonar will be run in Cavern No. 2

8. I hereby certify that the foregoing is true and correct.

Signed [signature] Title Mgr. of Eng Date 3/1/99

PB-KBB, agent for Amer&Gas Propane

Permit No. 627

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Sundry Notices and Reports On Wells
File One Copy
Form No. 28

Mail Completed Form to: Oil & Gas Program Administrator
Arizona Geological Survey
416 W. Congress #100
Tucson AZ 85701-1315

PB-KBB	SPECIFICATION	Number 928
	AMERIGAS PROPANE L.P. WELL NO. 2 ROACH BAKER MECHANICAL INTEGRITY TEST PROCEDURE USING NITROGEN/BRINE INTERFACE METHOD	Date 3/1/99
		Page 1 of 2

1.0 INTRODUCTION

The purpose of the cavern testing procedure is to test the mechanical integrity of the underground storage cavern to determine the suitability for storage of hydrocarbons. In summary, this cavern testing procedure consists of the following basic steps: Pressuring the cavern with brine to a given test pressure; injecting nitrogen into the well so that the nitrogen/brine interface is below the cemented production casing shoe; then recording the nitrogen and brine wellhead pressures and nitrogen/brine interface level throughout a given test period. During this test procedure a "through casing" sonar survey will also be run on the cavern.

2.0 PREPARATION

2.1 Provide skillets, blind flanges and/or double valves to isolate the well during the test. Test flanges with 2" connections may be required for product and brine wellhead valves.

2.2 Install pressure gauges and pressure recorders on well connections to allow continuous monitoring of nitrogen and brine wellhead pressures.

NOTE: Pressure recorders and dead weight testers utilized in the testing shall be calibrated in accordance with manufacturer specifications and traceable to National Bureau of Standard.

2.3 Provide a top connection on the wellhead (2" I.D. minimum) to permit installing a wireline lubricator for well logging.

2.4 Provide a connection (1" minimum) to permit injecting nitrogen into the product annulus.

2.5 Pressurize the cavern by pumping saturated brine into the brine tubing. See M.I.T. Well Data Sheet Items 4.5 and 4.6 for brine wellhead pressure and estimated volume of brine required.

2.6 Monitor brine wellhead pressures until it stabilizes at an acceptable test pressure. Pressure decline rates should be less than 10 psi/day before starting the test.

3.0 NITROGEN INJECTION

3.1 Rig up wireline logging unit and install a lubricator on wellhead. Run base density and temperature log.

3.2 Run "through casing" cavern sonar survey.

3.3 Rig up nitrogen pumping unit to inject into the product annulus and position the density tool at a depth of 500'. Start injecting nitrogen at a slow rate. Control the nitrogen injection temperature as close as possible to the final equilibrium temperature measured by the temperature log. Monitor and record nitrogen and brine pressures during injection. M.I.T. Well Data Sheet Items 2.7 and 2.8 present the appropriate wellhead test pressures. These pressures should not be exceeded. Monitor the differential nitrogen-brine pressure to insure the brine string is not subjected to collapse pressure condition.

PREPARED BY	DATE	CHECKED BY	DATE	APPROVED BY	DATE	REVISION	DATE
T. Moran	3/1/99	R. Benefield	3/1/99	T. Moran	3/1/99	0	3/1/99

PB-KBB ENGINEERING CONSTRUCTION OPERATIONS	SPECIFICATION	Number 928
	AMERIGAS PROPANE L.P. WELL NO. 2 ROACH BAKER MECHANICAL INTEGRITY TEST PROCEDURE USING NITROGEN/BRINE INTERFACE METHOD	Date 3/1/99
		Page 2 of 2

3.4 Find the nitrogen/brine interface with the density tool as it passes the 500' depth then track the interface movement down the well by moving the tool down in 300' increments. Continue tracking the interface until it reaches 50' above the casing shoe. Record nitrogen and brine wellhead pressures at each point.

3.5 When the nitrogen interface reaches 50' above the casing shoe stop nitrogen injection. Log interface depth and determine nitrogen volume injected. Monitor nitrogen and brine wellhead pressures and interface movement for a minimum of one hour to check for casing and wellhead leaks. Check all wellhead fittings and flanges and testing equipment fittings with liquid soap or equivalent to insure there are no wellhead leaks.

3.6 If no apparent casing or wellhead leaks are indicated, lower density tool to planned test interface depth and resume nitrogen injection. Continue to meter nitrogen and monitor wellhead pressures.

3.6 When the nitrogen interface reaches the planned interface depth stop nitrogen injection. Run a density log to verify the position of the nitrogen/brine interface relative to the production casing shoe. Determine total volume of nitrogen injected and estimate the borehole volume from casing shoe to interface.

See M.I.T Well Data Sheet for planned interface depth and estimated volumes.

3.7 After nitrogen injection, shut the well in to allow the nitrogen temperature to stabilize at the well temperature. Remove the logging tool from the well and close the logging valve.

3.8 During the temperature stabilization period, record nitrogen and brine wellhead pressures. Check all wellhead fitting and flanges with liquid soap or equivalent to insure there are no nitrogen leaks.

4.0 TEST INITIALIZATION

4.1 Rig up wireline logging unit and install lubricator on wellhead. Run initial density and temperature logs.

4.2 Record nitrogen and brine wellhead pressures.

5.0 TEST FINALIZATION

5.1 After the planned test duration, run the final density and temperature logs.

5.2 Record nitrogen and brine wellhead pressures.

5.3 If results indicate the test period must be extended, repeat steps 5.1 and 5.2 as required.

5.4 After the test, bleed off the brine pressure to the brine pond, then bleed off nitrogen pressure. Do not allow the cavern pressure change to exceed 100 psi/hr.

6.0 REPORT ON TEST RESULTS

6.1 Prepare a written report presenting test procedures, results and conclusions, along with a chronology of test activity, wireline logs, wellhead pressure records, and supporting calculations.

PREPARED BY	DATE	CHECKED BY	DATE	APPROVED BY	DATE	REVISION	DATE
T. Moran	3/1/99	R. Benefield	3/1/99	T. Moran	3/1/99	0	3/1/99

M.I.T. WELL DATA SHEET

2/22/99

1.0 WELL DESCRIPTION

1.1 Name		WELL #2
1.2 Operator		AmeriGas Propane L.P.
1.3 Location	Field	Glendale
	Parish	Maricopa
	State	Arizona
1.4 Cemented Casing	Size O.D.	8.625 inches
	Size I.D.	7.921 inches
	Depth	1662 feet
	Weight	32.00 lbs/ft
1.5 Hanging Pipe String	Size	6.5 inches
	Depth	2879 feet
	Weight	17.0 lbs/ft
	Size	inches
	Depth	feet
	Weight	lbs/ft
1.5 Total Depth		2905 feet

2.0 TEST PRESSURES

2.1 Casing Shoe Depth	1662 feet
2.2 Test Gradient	0.85 psi/ft
2.3 Brine Density (Estimated)	1.20
2.4 Nitrogen Temperature	100 deg F
2.5 Interface Elevation	1899 feet
2.6 Casing Shoe Pressure	1413 psi
2.7 Surface Brine Pressure	531 psi
2.8 Surface Nitrogen Pressure	1339 psi

3.0 VOLUME ESTIMATE

3.1 Total Volume To Casing Shoe	52 bbls
3.2 Nitrogen Volume To Casing Shoe	27,000 SCF
3.3 Total Nitrogen Required (Approximate)	31,000 SCF

4.0 COMPRESSIBILITY RESPONSE

4.1 Cavern Volume	1,127,003 bbls
4.2 Displacement To Interface	60 bbls
4.3 Cavern Compressibility	3.42 bbls/psi
4.4 Cavern Pressure Increase Due To N2 Injection	18 psi
4.5 Cavern Pressure With Brine	513 psi
4.6 Brine Volume (estimate)	1800 bbls

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator: Amerigas Propane Inc.

2. OIL WELL ☐ GAS WELL ☐ OTHER ☒ (Specify) Storage Well

3. Well Name: No. 2 Roach-Baker

Location: 2440.0' FNL and 677.64' FWL

Sec. 2 Twp. 2N Rge. 1W County Maricopa, Arizona.

4. Federal, State or Indian Lease Number, or lessor's name if fee lease: John L. Roach and Arthur E. Baker

5. Field or Pool Name:

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	MONTHLY PROGRESS	☐
FRACTURE TREAT	☐	DIRECTIONAL DRILL	☐	FRACTURE TREATMENT	☐	REPAIRING WELL	☐
SHOOT OR ACIDIZE	☐	PERFORATE CASING	☐	SHOOTING OR ACIDIZING	☐	ALTERING CASING	☐
REPAIR WELL	☐	CHANGE PLANS	☐			ABANDONMENT	☐
(OTHER)			☐			(OTHER) Mechanical Integrity Test and Sonar Survey	X

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

7. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

A Mechanical Integrity Test was performed on February 14 - 18, 1994 as per the enclosed report. The well was tested using propane at an equivalent pressure gradient of 0.85 psi/ft at the casing seat at 1662'. No leak was detected.

A Sonar Survey was performed through one hanging pipe on February 19, 1994 from a depth of 2910' to 1665'. The total volume was 1,127,000 Bbls. The Sonar report is enclosed.

AZ OIL & GAS CONSERVATION COMMISSION
MAY 25 1994

8. I hereby certify that the foregoing is true and correct.

Signed Tommy L Smith Title Senior Engineer Date 5-20-94

Permit No. 627

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Sundry Notices and Reports On Wells
Form No. 25 File One Copy

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator: Amerigas Propane Inc.

2. OIL WELL ☐ GAS WELL ☐ OTHER ☒ (Specify) Storage Well

3. Well Name: No. 2 Roach-Baker

Location: 2440.0' FNL and 677.64' FWL

Sec. 2 Twp. 2N Rge. 1W County Maricopa, Arizona.

4. Federal, State or Indian Lease Number, or lessor's name if fee lease: John L. Roach and Arthur E. Baker

5. Field or Pool Name:

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	MONTHLY PROGRESS	☐
FRACTURE TREAT	☐	DIRECTIONAL DRILL	☐	FRACTURE TREATMENT	☐	REPAIRING WELL	☐
SHOOT OR ACIDIZE	☐	PERFORATE CASING	☐	SHOOTING OR ACIDIZING	☐	ALTERING CASING	☐
REPAIR WELL	☐	CHANGE PLANS	☐			ABANDONMENT	☐
(OTHER) Mechanical Integrity Test			X	(OTHER)			☐

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

7. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Perform a Mechanical Integrity Test on Well No. 2 by the attached procedure. The test is tentatively scheduled for the week of February 14, 1994.

In addition, a "through casing" sonar will be run in Cavern No. 2.

AZ OIL & GAS
CONSERVATION COMMISSION
FEB 3 1994

8. I hereby certify that the foregoing is true and correct.

Signed [signature] Title Senior Engineer Date
PB-KBB agent for Amerigas Propane

Permit No. 627

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Sundry Notices and Reports On Wells
Form No. 26 File One Copy

AMERIGAS PROPANE INC.

WELL NO. 2 ROACH-BAKER

MECHANICAL INTEGRITY TEST PROCEDURE
USING BRINE/PRODUCT INTERFACE METHOD

AZ OIL & GAS
CONSERVATION COMMISSION
FEB 3 1994

I. INTRODUCTION

The objective of this procedure is to test the mechanical integrity of Cavern No. 2 in regard to product storage. The cavern testing program is accomplished by injecting product into the well casing to below the cemented casing seat, at a given test pressure, and recording the brine pressure, product pressure, injected product volume and product/brine interface level throughout a given test period.

II. PREPARATION

1. Inspect the cavern well head, valves and fittings for evidence of leakage or excessive corrosion. Correct all valve and flange leaks prior to the test.

2. Skillets, blind flanges and/or double valves shall be available at the time of the test to isolate the cavern after pressurization.

3. A top connection on the wellhead shall be provided (4" I.D. minimum) to permit mounting of the wireline lubricator. This will enable logging of the well through the brine string during the test.

4. Connections shall be provided for continuous pressure recorders and gauges to monitor both the tubing and annulus wellhead pressures.

5. Connections shall be provided to permit product injection during the cavern pressurization.

6. The capability to measure the product volume injected shall be provided.

7. The cavern should be pressured by pumping saturated brine into the brine tubing. See 4.5 on the Well Data Sheet for the appropriate brine pressure.

III. PRODUCT INJECTION

1. Install pressure recorders on the brine tubing and product annulus.
   Note: Pressure recorders and a dead weight tester utilized in the testing shall be calibrated in accordance with manufacturer specifications and traceable to the National Bureau of Standards.

2. Rig up a wireline lubricator on the well and install an interface logging tool. Run a base density log and a temperature log.

3. Carefully inject a metered volume of product into the annulus of the well. See items 2.7 and 2.8 on the Well Data Sheet for the appropriate wellhead pressures to be achieved. Do not exceed these pressures.

PB-KBB
FENIX & SCISSON
ENGINEERING CONSTRUCTION OPERATIONS

P/N 627

4. Find the product/brine interface as it passes the 300' depth. Once the interface passes 300', move the tool down in 200' increments until the product/brine interface reaches 50' above the casing shoe. Pressure readings should be taken as the interface passes each point.

   Obtain and record time, wellhead pressures, interface depth and incremental product volume added during all steps. Interface depth should be measured as close to required depths as is feasible due to well and tool conditions.

5. After the product/brine interface reaches a depth of 50' above the last cemented casing shoe, the injection of the product will be stopped. The purpose for this interruption is to check the casing and the wellhead for leaks.

   After establishing there are no casing or wellhead leaks, continue injecting product and establish a product/brine interface below the casing shoe.

   See items 3.1 and 3.2 on the Well Data Sheet for the volume of product required to fill the annulus and an estimate of product needed to fill the borehole below the casing shoe.

6. Isolate the cavern from the rest of the system by installing skillets or blind flanges and/or double valving.

7. Again check all wellhead fittings and connections with liquid soap (or equal) to insure there are no wellhead leaks.

8. Run a density log that locates the casing shoe and the product/brine interface.

9. Remove the logging tool from the well and secure the wellhead.

IV. TEST START - INITIALIZATION

1. When it is clear the pressures are stable (a minimum of 12 hours after last injection), run an initialization density and temperature log, noting casing shoe, and product/brine interface.

2. Record dead weight readings of wellhead brine and product pressures.

V. TEST COMPLETION

1. After 24 hours from test initialization run a finalization density and temperature log noting casing shoe, and product/brine interface.

2. Record dead weight readings of wellhead pressures.

3. If test results are inconclusive extend the test 24 hours, and repeat steps 1 and 2.

VI. REPORTS ON TEST RESULTS

A detailed written report of test procedures and results, including the density logs, will be furnished within 30 days.

AZ OIL & GAS
CONSERVATION COMMISSION
FEB 3 1994

WELL DATA SHEET

CONSERVATION COMMISSION
FEB 3 1994

1.0 WELL DESCRIPTION		
1.1 Name		Well # 2 (627)
1.2 Operator		Amerigas
1.3 Location	Field	Glendale
	County	Maricopa
	State	Arizona
1.4 Cemented Casing	Size	8–5/8inches
	Depth	1662 feet
	Weight	32.0 lbs/ft
	Grade	K–55
1.5 Hanging Pipe String	Size	5–1/2inches
	Depth	2879 feet
	Weight	17.0 lbs/ft
	Grade	K–55
1.6 Total Depth		2914 feet

2.0 TEST PRESSURES	
2.1 Casing Seat Depth	1662 feet
2.2 Test Gradient	0.85 psi/ft
2.3 Product Specific Gravity(Propane)	0.508
Brine Specific Gravity (Assumed)	1.20
2.4 Product Temperature	80 deg F
2.5 Interface Elevation	1700 feet
2.6 Casing Seat Pressure	1413 psi
2.7 Surface Brine Pressure	548 psi
2.8 Surface Product Pressure	1047 psi
3.0 VOLUME ESTIMATE	
3.1 Total Volume To Casing Shoe	53 Bbls.
3.2 Total Product Volume Required (Approximate)	62 Bbls.
4.0 COMPRESSIBILITY RESPONSE	
4.1 Cavern Volume	1,058,000 bbls
4.2 Displacement To Interface	62 bbls
4.3 Cavern Compressibility	3.02 bbls/psi
4.4 Cavern Pressure Increase Due To Product Injection	21 psi
4.5 Cavern Pressure With Brine	528 psi
4.6 Brine Volume (estimate)	1596 bbls

P/N 627

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator A P Propane dba CAL GAS

2. OIL WELL ☐ GAS WELL ☐ OTHER ☒ (Specify) Storage Well

3. Well Name No. 2 Roach-Baker

Location 2440.0' FNL & 677.64' FWL

Sec. 2 Twp. 2N Rge. 1 W County Maricopa, Arizona.

4. Federal, State or Indian Lease Number, or lessor's name if fee lease

5. Field or Pool Name

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	MONTHLY PROGRESS	☐
FRACTURE TREAT	☐	DIRECTIONAL DRILL	☐	FRACTURE TREATMENT	☐	REPAIRING WELL	☐
SHOOT OR ACIDIZE	☐	PERFORATE CASING	☐	SHOOTING OR ACIDIZING	☐	ALTERING CASING	☐
REPAIR WELL	☐	CHANGE PLANS	☐			ABANDONMENT	☐
(OTHER)			☐	(OTHER) Mechanical Integrity Test			X

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

7. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

On 6/21/89 - 6/23/89 a mechanical integrity test was conducted on Cal Gas' Well No, 2 Roach-Baker and witnessed by Steve Rauzzi, Arizona Oil & Gas Conservation Commission. The Attached Report presents the test procedure, results, and conclusions. — see Log file

AZ OIL & GAS
CONSERVATION COMMISSION

JUL 26 1989

8. I hereby certify that the foregoing is true and correct.

Signed [signature] Title Geologist Date 7/21/89

PB-KBB agent for Cal GAs

Permit No. 627

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Sundry Notices and Reports On Wells
Form No. 25 File One Copy

MECHANICAL INTEGRITY TEST – CAL GAS CAVERN # 2

Witness Record, P/N 627

6/21/89 (7:00am – 1:45 pm)

Rig up lubricator and wireline equipment
Run temperature log from surface to T.D. of about 2940'
Run base line Gamma Ray (GR) log from about 2940' to surface
Inject product about 9:00 am with GR tool @ ~ 500'
Follow product/brine interface (PBI) downhole w/ GR @ ~ 200' increments
Record PBI @ ~ 1700' and wait 30 min.
Record more distinct PBI @ ~ 1684' and inject back to 1700'
Wait 30 min and Record PBI @ ~ 1702'
SI well for 24 hr to allow product (~88°F) and Cavern (~100°F) to equal

6/22/89 (6:30am – 9:30 am)

Rig up + run temperature log from surface to about 1850'
Tie in depth to shoe of 8 5/8" casing shoe at about 1662'
Record PBI at 1703', about 1 foot below yesterday's final reading
Take deadweight readings: Brine @ 499 lbs, Product @ 1015 lbs
Replace 24-hour pressure chart
SI well for 24 hr period (= official start of M.I.T.)

6/23/89 (6:30am – 8:30am)

Rig up + run temperature log from surface to about 1850'
Tie in depth to shoe of 8 5/8" csg shoe @ 1662'
Record PBI at 1703', essentially same depth as yesterday's final
Take deadweight readings: Brine @ 499 lbs, Product @ 1015 lbs
24-hr pressure recording chart shows constant P over last 24 hr
End of Mechanical Integrity Test, shows pressure tight vessel
Rig down lubricator and wireline equipment

SLR // 6/23/89

AP PROPANE dba CALGAS

WORKOVER REPORT

WELL NO. 2 ROACH-BAKER

Workover Dates:	4/5/89 - 5/7/89
Objective:	Install and cement 8-5/8" casing liner from 50' below the existing 10-3/4" casing to surface.
Workover Log:	The following is a chronological summary of the workover operation.
04/05/89	Welltech, drilling rig contractor, trucks arrived on location.
04/06/89	Welltech crew arrived on location and began installing a new transmission on the drilling unit.
04/07/89	Completed installing the new transmission and began rig up operation.
04/08/89	Continued rig up operations.
04/09/89	Removed top section of the wellhead and installed the annulus blowout preventer.
04/10/89	Pulled 4-1/2" casing hanging string. Pulled a total of 2880' - 66 joints. Attempted to pull the 7" casing. The casing hanger would not break loose.
04/11/89	Picked up a set of jars and a bumper sub and jarred the 7" casing hanger loose. Pulled and laid down the 7" casing hanging string. Rigged up Atlas Wireline Company and ran a caliper log of the borehole. Also started running the sonar survey.
04/12/89	Completed running the sonar survey. Ran cement umbrella in the well to 1760' G.L. on 1723' of 2-7/8" tubing with 56' of 2" aluminum pipe on the bottom. Dumped 2' cinder block and gravel plug on top of the umbrella and spotted a 5' quick set-cement plug on top of the cinder and gravel plug.
04/13/89	Ran 1-1/4" tubing down beside the 2-7/8" tubing and spotted a 5' quick set cement plug. Waited on cement to set 4 hours. Ran a wireline to tag the cement top. No fillup was found. Dropped additional cinder blocks to establish a 5' cinder plug.
04/14/89	Ran 1-1/4" tubing in the well and spotted a 5' cement plug.

04/15/89	Pressure tested the cement plug to 210 psi - 100 psi pressure drop in 5 minutes. Repeated test 3 times with the same results. Twisted the 2-7/8" tubing off of the aluminum pipe and pulled out of the hole. Ran the 2-7/8" tubing in the hole and tagged cement at 1723'. Spotted a 30' (5 bbls) cement plug.
04/16/89	Waited on cement.
04/17/89	Attempted a pressure test of the borehole plug. Pressure decreased from 450 psi to 250 psi in one minute. Tagged cement plug at 1671.55 G.L. Called for packers to test casing and borehole.
04/18/89	Ran casing scraper through 10-3/4" casing. Set fullbore packer at 53' to check surface leaks. Test good. Set packer at 1585' G.L. and tested 10-3/4" casing above the packer to 450 psi. Test good. Attempted to pressure test borehole below the packer. The pressure would not hold.
04/19/89	Ran a Baker inflatable packer in the hole and attempted to test the 10-3/4" casing shoe, borehole, and cement plug. The packer would not seat in the borehole. Decision was made to conduct cement squeeze first on borehole cement plug then on casing shoe. Ran 2-7/8" tubing in the hole and spotted a 20' cement plug on top of previous plug. Applied squeeze pressure but experienced no pressure build up. Raised tubing and spotted cement plug from 25' below 10-3/4" casing to 100' above. Applied squeeze pressure to 560 psi.
04/20/89	Waited on cement.
04/21/89	Waited on cement. Cut off old wellhead. Installed a new casinghead and tested to 2200 psi.
04/22/89	Waited on cement. Nippled up wellhead and blowout preventer.
04/23/89	Drilled out cement. (Drilled out of cement before reaching casing shoe). Attempted a pressure test. Pressure would not hold. Spotted 17.8 barrels of cement across shoe and applied squeeze pressure. Estimated 0.6 bbls squeezed in 2 hours and 15 minutes, and 0.1 bbls in the last 22 minutes. Maintained squeeze pressure and waited on cement.
04/24/89	Drilled out cement to 15' below the 10-3/4" casing shoe. Tested the shoe to 400 psi. The pressure dropped 40 psi in 34 minutes. The test was approved by Steve Rauzi of the A.O. & G.C. Drilled the bottom plug out to 1671' G.L.
04/25/89	Underreamed the borehole to 19" to expose salt for better cement bonding. Tested the 10-3/4" casing to 400 psi for 30 minutes. Test good. Underreamed 15' of bottom plug

then again tested the borehole to 400 psi for 30 minutes. Test good. Both tests witnessed by Arizona O&GCC.

04/26/89 Ran 10-3/4" casing scraper. Rigged up casing crew and ran 20 joints of 8-5/8", 32#, K-55, Modified special clearance BT&C casing. Loomis internally tested each connection with helium to 2500 psi.

04/27/89 Continued running and internally testing the 8-5/8" casing.

04/28/89 Landed the 8-5/8" casing and rigged up to cement. Ran a total of 41 joints of 8-5/8", 32#, K-55 Modified s.c. BT&C set at 1662' G.L. Cemented with 128 barrels of salt saturated Class "G" Cement. Mixed 50 bbls at 15.7 ppg and tailed with 78 bbls at 16 ppg. (Calculated 30 bbls of excess). Circulated out 20 bbls excess.

04/29/89 Waited on cement.

04/30/89 Waited on cement. Checked 8-5/8" x 10-3/4" annulus. Cement slumped 4'.

05/01/89 Nippled up wellhead and blowout preventer stack.

05/02/89 OFM tested the wellhead to 2500 psi. Ran in the hole with a 7-5/8" bit and drilled out the cement and float collar. The bit appeared to be dragging and was pulled out of the hole. All 3 cones showed drag wear.

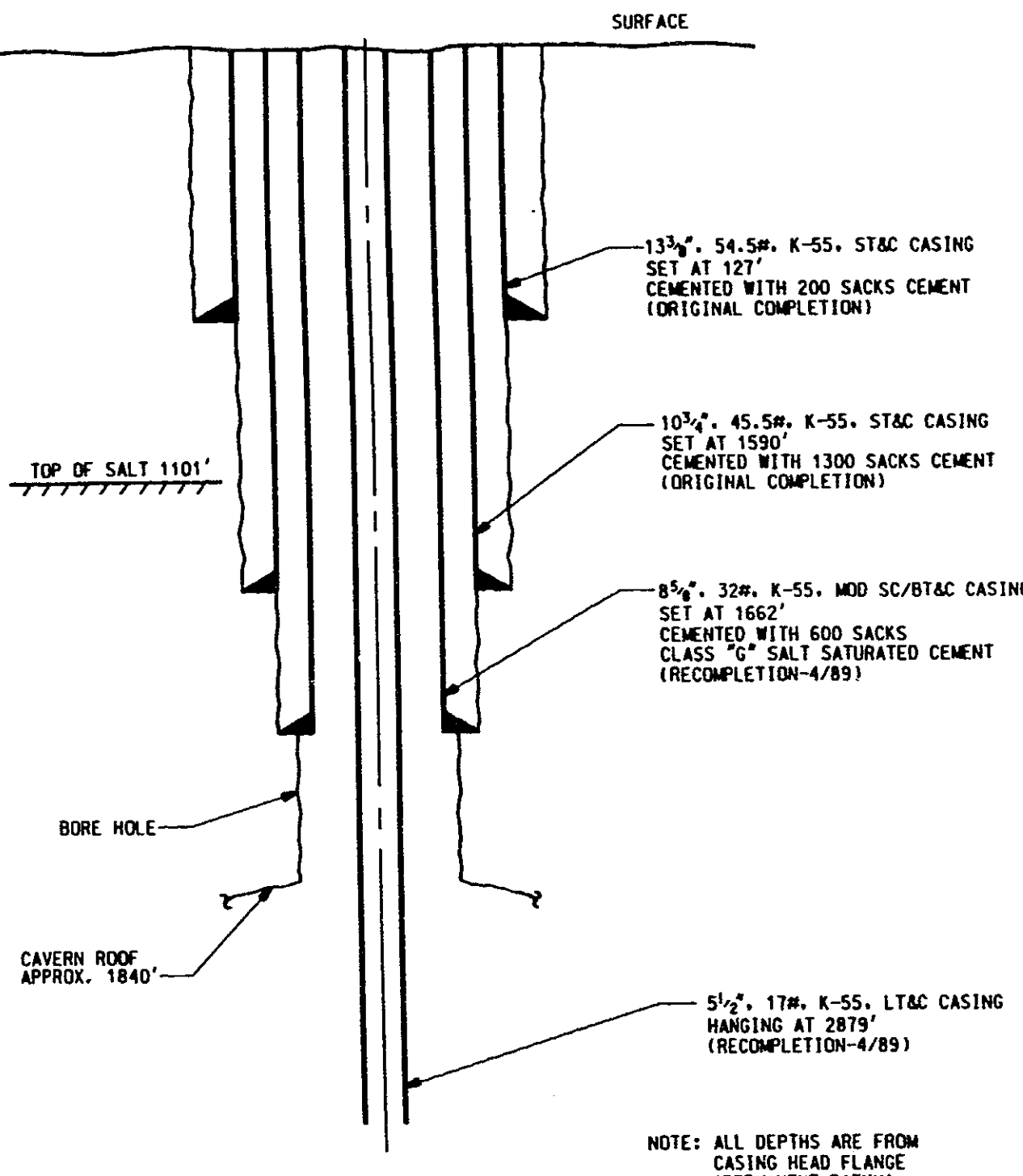
05/03/89 Ran in the hole with 7-5/8" bit and drilled out cement to 5' below the 8-5/8" casing shoe. Tested the 8-5/8" casing shoe to 350 psi for 30 minutes. Test was witnessed by Steve Rauzi, Arizona O&GCC. Atlas Wireline ran casing bond log and a casing inspection log (Vertilog). The CBL showed good bonding throughout.

05/04/89 Ran 7-5/8" bit and drilled out the remainder of the bottom plug. The cavern began flowing.

05/05/89 Ran 12-1/4" underreamer and underreamed the 7-5/8" hole. The underreamer fell free at 1790'. Pulled out of the hole.

05/06/89 Ran the 2-7/8" tubing in the hole to 2800' and then laid down. Ran 68 joints of 5-1/2", 17# K-55, LT&C casing, a total of 2881.25' - landed at 2879' casinghead flange. (A weephole was cut 4' from the bottom of the bottom joint.) Removed BOP and installed the top section of the wellhead. OFM tested the top section to 2300 psi.

05/07/89 Cleaned out the rig pits, returned all rental tools and moved the rig off the well.



PB-KBB Inc. Subsurface Systems & Technology	AP PROPANE dba CAL GAS Glendale, Arizona			
STORAGE WELL No. 2 ROACH-BAKER				JOB No. 303008
DRAWN: JKH	CHECKED: TM	DATE: 05-31-89	SCALE: NONE	DRAWING No. SW-RB-02

Witness Record

Cal-Gas Roach-Baker # 2 (P/N) 627

5-2-89 (4:30 pm - 7:30 pm)

Drlg out cement
Drlg rate very slow ~ 5 ft/min
POH to check bit
Bit had froze up

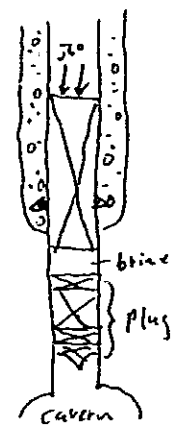
5-3-89 (9:00 am - 11:00 am)

Resume Drlg out cement to below $8\frac{5}{8}$" shoe
Pressure test shoe @ 350 psi for ~ 20 min
Pressure test satisfactory

SLR / 5-3-89

Cal-Gas Roach-Baker # 2 (PIN 627) Witness Record

4-19-89 (4:45 pm - 9:00 pm)



Cmt. plug set from 25' below $10\frac{3}{4}$" csg shoe to 80' above shoe
Brine between bottom plug and squeeze plug
Apply 560 psi on plug and monitor pressure
Squeeze about 1.5 bbls in 3 hours
S.I. well with Martin-Decker pressure recorder

4-23-89 (2:30 pm - 8:30 pm)

Drill out cement plug and find bottom of plug inside $10\frac{3}{4}$" pipe.
Call Dowell, rig up cementers, spot a 17 bbl plug
Apply 450 psi on plug and monitor pressure
Squeeze about .7 bbl (~29 gallon) in a little over 2 hours
S.I. well for night.

4-27-89 (4:30 pm - 8:00 pm)

Run 6 joints $8\frac{5}{8}$" casing
Internally pressure test each coupling to 2500# with helium
Casing hanger to big (O.D.) to fit through upper hydril BOPE flange.
Remove flange on top of hydril annular preventer
Wait on spider (slip bowl) and place ontop of annular preventer
Run last 3 joints of $8\frac{5}{8}$" casing making up below substructure

4-28-89 (6:30 am - 11:50 am)

Make up casing landing (hanger) head on last joint of casing
Land $8\frac{5}{8}$" casing hanger in well head w/ shoe ~ 1668'
Rig up Dowell, cement $8\frac{5}{8}$" casing with ~124 bbls
Circulate about 15 bbls excess cement at surface
Rig down Dowell and will W.O.C. 72 hours

SLR/4-28-89

Cal-Gas Roach-Baker #2 (P/N 627)

4-13-89 Thursday

Witness spotting of 5 foot plug on umbrella basket ~1759'. Did not get a definitive tag so broken cinder blocks were dropped in hole to build up a good bridge across the umbrella basket. Pull tubing and discover that 28 of 57 joints of 1¼" tubing filled with cement.

4-14-89 Friday

POH with 1¼" tubing and change out cemented joints. R.I.H. and spot a ~20 foot plug on the cinder block-umbrella basket bridge. Pull 10 jts of 1¼" tubing, displace, circulate hole, POH, and shut in BOPE. W.O.C. Tag top of plug with sinker bar at about 1732'.

4-15-89 Saturday

RIH with 1¼" tubing and tag plug. Pressure up and note pressure drop off about 100 psi. Twist off 3" aluminum tubing (which initally held the umbrella basket) and POH. Circulate hole and spot a 30 foot plug.

SLR/4-17-89

MAR 13 1989

O & G CONS. COMM.

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator AP Propane, Inc. dba Cal Gas

2. OIL WELL ☐ GAS WELL ☐ OTHER ☒ (Specify) Storage Well

3. Well Name No. 2 Roach-Baker

Location 2440.0' FNL & 677.64' FWL

Sec. 2 Twp. 2N Rge. 1W County Maricopa, Arizona.

4. Federal, State or Indian Lease Number, or lessor's name if fee lease

5. Field or Pool Name

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	MONTHLY PROGRESS	☐
FRACTURE TREAT	☐	DIRECTIONAL DRILL	☐	FRACTURE TREATMENT	☐	REPAIRING WELL	☐
SHOOT OR ACIDIZE	☐	PERFORATE CASING	☐	SHOOTING OR ACIDIZING	☐	ALTERING CASING	☐
REPAIR WELL	☐	CHANGE PLANS	☐			ABANDONMENT	☐
(OTHER) Install Cemented Liner			X	(OTHER)			☐

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

7. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

The attached program presents the proposed steps for installing a liner (cemented casing) in Cal Gas' Well No. 2 Roach-Baker.

The workover is tentatively scheduled to commence 4/3/89.

8. I hereby certify that the foregoing is true and correct.

Signed Tim Moran Title Project Manager Date 3/7/89

PB-KBB Inc. Agent for Cal Gas

Permit No. 627

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Sundry Notices and Reports On Wells
File One Copy
Form No. 26

MAR 13 1989

O & G CONS. COMM.

AP PROPANE INC. dba
CAL GAS CORP.
REMEDIAL WORKOVER PROGRAM
WELL NO.2 ROACH-BAKER

This program presents the proposed steps for installing a liner (cemented casing) in Cal Gas' Well No. 2 Roach-Baker. It is recommended as a guideline for the remedial workover. Actual conditions encountered during the workover may dictate some changes be made.

1. Displace all product from the cavern.

2. After all product is displaced, circulate brine to the pit for a minimum of two days.

3. Vent cavern for a minimum of one week. Keep the well closed in, and every 12 hours bleed down. Keep a record of the pressure build up in 12 hours and how long the well flows each time it is bled off.

4. Move in and rig up the workover rig.

5. Remove top wellhead cross and install BOP.

   Note: A 10" annular preventer is to be used throughout the operation, except after the borehole has been plugged and tested. After the 8 5/8" casing has been run and cemented in place, the annular preventer will again be required throughout the remaining operation.

6. Pull and laydown the 4 1/2" casing.

7. Pull and laydown the 7" casing.

8. Rig up logging truck and run Cavern sonar survey and borehole caliper log.

9. Move in and rig up cementing contractor.

10. Set an open hole 50' cement plug from approximately 1650' to 1700' a minimum of 50' below the last cemented casing string. Actual depths will be determined after the sonar and caliper logs have been run.

    The open hole cement plug will be placed in stages beginning with a 5' plug and then the length of the plug will increase until a total of 50' has been attained.

    a. The device used to initiate the first stage plug (umbrella, packer) will be determined after evaluating the borehole caliper.
    b. The first two plugs will be a water-free salt type cement.
    c. The final plug will be a Class G salt saturated cement.
    d. The W.O.C. times will range from 12 to 18 hours between plugs and 72 hours on the final plug.

11. Test the open hole plug to a pressure equivalent to a hydrostatic head of 16.2 ppg cement.

12. Remove BOP and rig up to run 8 5/8" casing.

13. Run 8 5/8", 32#, K-55, Mod BT&C SCC Casing to 1650'+. Install an automatic fill-up float shoe and collar on the bottom joint. Space out with pup joints to land the casing 3' above the cement plug. Install centralizers in the middle of the bottom joint and second joint, then every third joint. Internally pressure test each coupling.

14. Rig up the cementing contractor and circulate one casing volume.

15. Cement the 8 5/8" casing to surface.
    a. Class G salt saturated cement mixed at 16.2 ppg.
    b. Precede the cement with 20 barrels of brine.
    c. Use a top plug - pump the plug down with brine and bump the plug with 800 psi. Hold the pressure for 30 minutes to test the casing.
    d. If no pit area is available, vacuum trucks are to be used to take off excess fluids from the cementing operations.

16. Wait on cement 72 hours.

17. After 48 hours back out the 8 5/8" landing joint.

18. Install the wellhead spool and 8 5/8" casing seal.

19. Test the 8 5/8" casing seal to 1100 psi for 15 minutes.

20. Install the BOP, drilling nipple and flow line.

21. After WOC drill out the float collar, cement, float shoe and 10' of hole with a 7 5/8" bit.

22. Pressure test the shoe to approximately 600 psi surface pressure using 9.8 ppg brine. Exact test pressure will be determined from casing setting depth and test fluid density.

23. Drill out the cement borehole plug and lower the drill string into the cavern to assure the borehole is clean.

24. Rig up logging truck and run casing inspection log and cement bond log.

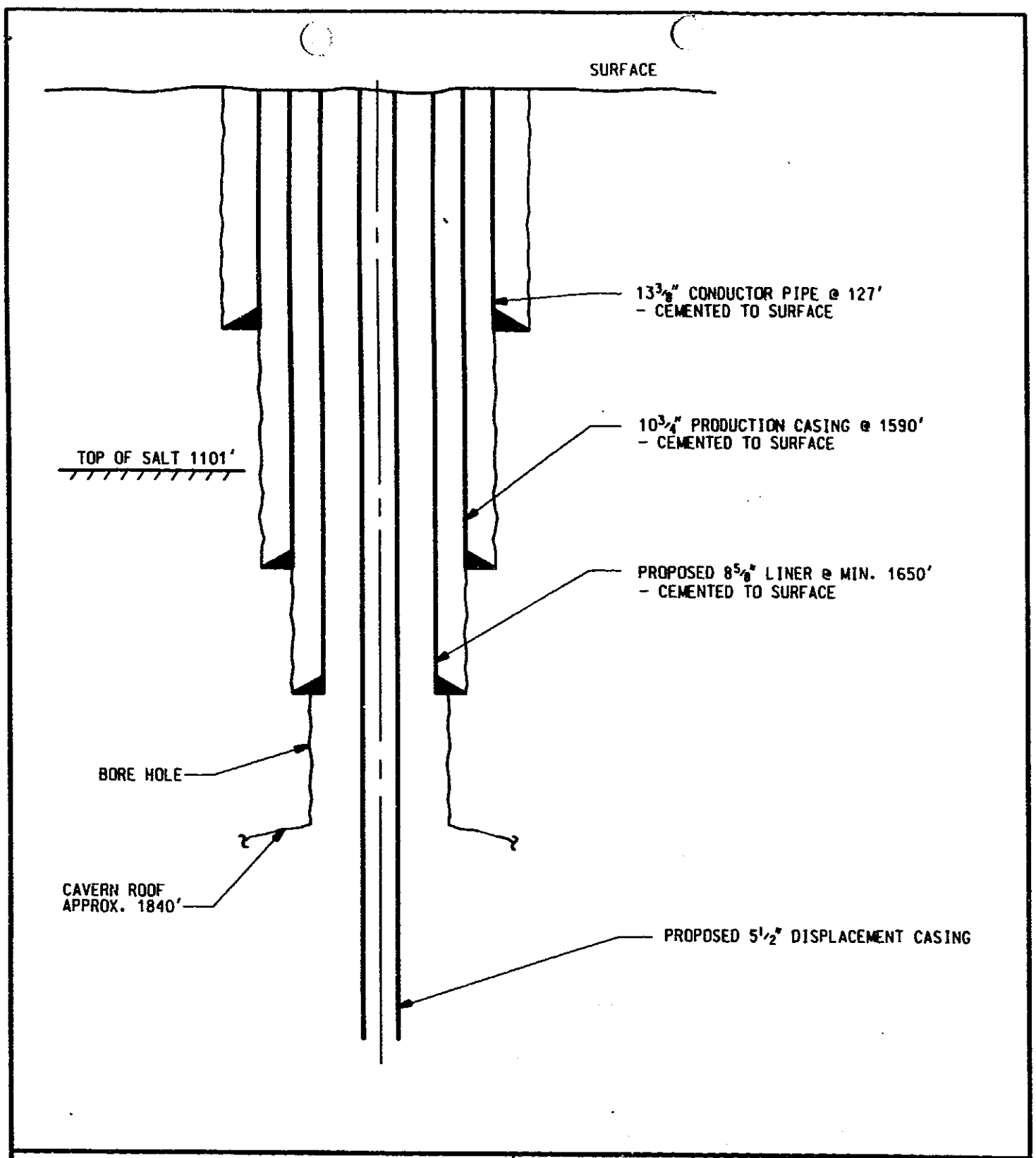
25. Rig up and run 5 1/2", 17#, K-55, LT&C casing to 2880' ±.

26. Install wellhead.

27. Rig down the workover rig.

28. Hook up the surface lines.

29. Run cavern integrity test.



PB-KBB Inc. Subsurface Systems & Technology			AP PROPANE dba CAL GAS Sacramento, California	
STORAGE WELL No. 2 ROACH-BAKER PROPOSED REMEDIAL WORKOVER				JOB No. 303008
DRAWN: JKH	CHECKED: TM	DATE: 03-07-89	SCALE: NONE	DRAWING No. SW-W-02

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

DESIGNATE TYPE OF COMPLETION:

New Well [X] Work-Over [ ] Deepen [ ] Plug Back [ ] Same Reservoir [ ] Different Reservoir [ ] Oil [ ] Gas [ ] Dry [ ]

DESCRIPTION OF WELL AND LEASE

Operator: California Liquid Gas Corp.	Address: Box 28397, Sacramento, California 95828
Federal, State or Indian Lease Number or name of lessor if fee lease: John L. Roach & Arthur E. Baker	Well Number: 2 — Field & Reservoir: Salt Storage Well
Location: 2440.0' FNL & 677.64' FWL	County: Maricopa
Sec. TWP-range or Block & Survey: Sec. 2, T2N, R1W, G&SRB&M	

Date spudded	Date total depth reached	Date completed, ready to produce	Elevation (DF, RKB, RT or Gr.) feet	Elevation of casing hd. flange feet
Nov. 28, 1974	Dec. 30, 1974		1,087 gr.	1,088

Total depth	P.B.T.D.	Single, dual or triple completion?	If this is a dual or triple completion, furnish separate report for each completion.
3,210	N/A	Single	

Producing interval (s) for this completion	Rotary tools used (interval)	Cable tools used (interval)
N/A	All	None

Was this well directionally drilled?	Was directional survey made?	Was copy of directional survey filed?	Date filed
No	No	No	

Type of electrical or other logs run (check logs filed with the commission)	Date filed
Caliper, Gamma Ray, Density	Jan. 2, 1975

CASING RECORD

Casing (report all strings set in well—conductor, surface, intermediate, producing, etc.)

Purpose	Size hole drilled	Size casing set	Weight (lb./ft.)	Depth set	Sacks cement	Amt. pulled
surface	17 1/2"	13 3/8"	54.5	127'	200	0
protection	12 1/4" - 15"	10 3/4"	45.5	1590'	1300	0
wash	8 3/4"	7"	23.0	2700'	Hung uncemented	
--	--	4 1/2"	9.5	3192'	--	--

TUBING RECORD

Size in.	Depth set ft.	Packer set at ft.

LINER RECORD

Size in.	Top ft.	Bottom ft.	Sacks cement	Screen (ft.)

PERFORATION RECORD

Number per ft.	Size & type	Depth Interval

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Am't. & kind of material used	Depth Interval

INITIAL PRODUCTION

Date of first production	Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump:)

Date of test	Hrs. tested	Choke size	Oil prod. during test bbls.	Gas prod. during test MCF	Water prod. during test bbls.	Oil gravity °API (Corr)

Tubing pressure	Casing pressure	Cal'ted rate of Production per 24 hrs.	Oil bbls.	Gas MCF	Water bbls.	Gas—oil ratio

Disposition of gas (state whether vented, used for fuel or sold):

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Chief Drilling Engineer of the Fenix & Scisson (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Date: January 3, 1975

Signature: H. H. Holloway

Fenix & Scisson, Inc. is agent for California Liquid Gas Corp.

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Permit No.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Well Completion or Recomplection Report and Well Log
File One Copy
Form No. 4

(Complete Reverse Side)

DETAIL OF FORMATIONS PENETRATED

Formation	Top	Bottom	Description*
Surface	0	270	Surface sand & caliche
	270	357	Sand
	357	510	Sand with anhydrite
	510	950	Sand with shale & slit
	950	1101	Anhydrite
	1101	3210	Salt

* Show all important zones of porosity, detail of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

INSTRUCTIONS:

Attach drillers log or other acceptable log of well.

This Well Completion or Recompletion report and well log shall be filed with the State of Arizona Oil & Gas Conservation Commission not later than thirty days after project completion.

Form No. 4

May 1, 1975

MEMORANDUM

TO: Jesse Wyrick

FROM: Steve Webb SW

SUBJECT: Weekly Cal-Gas Status Report (#225)

Solution Well No. 1

Ninety percent brine being injected into well at approximately 330 gpm. The total cavern volume to date is estimated to be 507,000 barrels.

Solution Well No. 2

Ran SLM and raised the 4-1/2" casing from 3,152' to 2,950' ground level. Fresh water is being injected into well at approximately 330 gpm and 730 psig. The total sump volume is estimated to be 78,000 barrels as of this date.

SW:wi

cc: K. Allen
E. B. Alleman

FENIX & SCISSON, INC.
5805 EAST FIFTEENTH STREET
TULSA, OKLAHOMA

PLEASE REPLY TO:
P. O. BOX 15609
TULSA, OKLAHOMA 74115

PHONE (918) 835-9471
TWX No. (910) 845-2108
CABLE ADDRESS: FENSON TULSA

March 7, 1975

Mr. Glenn Sorensen
California Liquid Gas Corporation
P. O. Box 28397
Sacramento, California 95828

Dear Mr. Sorensen:

Following is the weekly summary of operations at Glendale:

OPERATIONS REPORT NO. 59
3-1-75 through 3-7-75

CALIFORNIA LIQUID GAS CORPORATION
SOLUTION MINING PROJECT
GLENDALE, ARIZONA

WELL	DAILY AVERAGE VOLUME SPACE LEACHED (bbls)	VOLUME SPACE LEACHED WEEKLY (bbls)	VOLUME SPACE LEACHED CUMULATIVE (bbls)
S.W. No. 1	206	1,445	481,613
S.W. No. 2	1,274	8,916	28,232

REMARKS:

See Gil Baker's Weekly Status Report dated March 6, 1975.

Sincerely,

M. F. Haslet
Assistant
Operations Supervisor

MFH/sm
Encl.
cc - Mr. W. E. Allen
Mr. E. B. Alleman

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MAR 1975
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FENIX & SCISSON, INC.
5805 EAST FIFTEENTH STREET
TULSA, OKLAHOMA

PLEASE REPLY TO:
P. O. Box 15609
TULSA, OKLAHOMA 74115

PHONE (918) 835-9471
TWX No. (910) 845-2108
CABLE ADDRESS: FENSON TULSA

February 28, 1975

Mr. Glenn Sorensen
California Liquid Gas Corporation
P. O. Box 28397
Sacramento, California 95828

Dear Mr. Sorensen:

Following is the weekly summary of operations at Glendale:

OPERATIONS REPORT NO. 58
2-22-75 through 2-28-75

CALIFORNIA LIQUID GAS CORPORATION
SOLUTION MINING PROJECT
GLENDALE, ARIZONA

WELL	DAILY AVERAGE VOLUME SPACE LEACHED (bbls)	VOLUME SPACE LEACHED WEEKLY (bbls)	VOLUME SPACE LEACHED CUMULATIVE (bbls)
S.W. No. 1	167	1170	480,168
S.W. No. 2	1120	7843	19,316

REMARKS:

See Dean Kimbrough's Weekly Status Report dated February 27, 1975.

Sincerely,

C. L. Hayes
Operations Supervisor

CLH/sm
Encl.
cc - Mr. W. E. Allen
Mr. E. B. Alleman

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FENIX & SCISSON, INC.
5805 EAST FIFTEENTH STREET
TULSA, OKLAHOMA

PLEASE REPLY TO:
P. O. BOX 15609
TULSA, OKLAHOMA 74115

PHONE (918) 835-9471
TWX NO. (910) 845-2108
CABLE ADDRESS: FENSON TULSA

February 21, 1975

Mr. Glenn Sorensen
California Liquid Gas Corporation
P. O. Box 28397
Sacramento, California 95828

Dear Mr. Sorensen:

Following is the weekly summary of operations at Glendale:

OPERATIONS REPORT NO. 57
2-15-75 through 2-21-75

CALIFORNIA LIQUID GAS CORPORATION
SOLUTION MINING PROJECT
GLENDALE, ARIZONA

WELL	DAILY AVERAGE VOLUME SPACE LEACHED (bbls)	VOLUME SPACE LEACHED WEEKLY (bbls)	VOLUME SPACE LEACHED CUMULATIVE (bbls)
S.W. No. 1	157	1,101	478,998
S.W. No. 2	916	6,412	11,473

REMARKS:

See Dean Kimbrough's Weekly Status Report dated February 20, 1975.

Sincerely,

M. F. Haslet

M. F. Haslet
Assistant
Operations Supervisor

MFH/sm
Encl.
cc - Mr. W. E. Allen
Mr. E. B. Alleman

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FENIX & SCISSON, INC.
5805 EAST FIFTEENTH STREET
TULSA, OKLAHOMA

PLEASE REPLY TO:
P. O. Box 15609
TULSA, OKLAHOMA 74115

PHONE (918) 835-9471
TWX NO. (910) 845-2108
CABLE ADDRESS: FENSON TULSA

February 14, 1975

Mr. Glenn Sorensen
California Liquid Gas Corporation
P. O. Box 28397
Sacramento, California 95828

Dear Mr. Sorensen:

Following is the weekly summary of operations at Glendale:

OPERATIONS REPORT NO. 56
2-8-75 through 2-14-75

CALIFORNIA LIQUID GAS CORPORATION
SOLUTION MINING PROJECT
GLENDALE, ARIZONA

WELL	DAILY AVERAGE VOLUME SPACE LEACHED (bbls)	VOLUME SPACE LEACHED WEEKLY (bbls)	VOLUME SPACE LEACHED CUMULATIVE (bbls)
S.W. No. 1	210	1,468	477,897
S.W. No. 2	723	5,061	5,061

REMARKS:

See Dean Kimbrough's weekly status report dated February 13, 1975.

Sincerely,

C. L. Hayes
Operations Supervisor

CLH/sm
Encl.
cc - Mr. W. E. Allen
Mr. E. B. Alleman

RECEIVED
FEB - 6 1975
O & G CONS. COMM.

FENIX & SCISSON, INC.
5805 EAST FIFTEENTH STREET
TULSA, OKLAHOMA

January 3, 1975

PLEASE REPLY TO:
P. O. BOX 15609
TULSA, OKLAHOMA 74115

PHONE (918) 835-9471
TWX NO. (910) 845-2108
CABLE ADDRESS: FENSON TULSA

Oil and Gas Conservation Commission
State of Arizona
4515 North 7th Avenue
Phoenix, Arizona 85013

Gentlemen:

The following is the final progress report on the No. 2 salt solution well we have completed for California Liquid Gas Corporation in Maricopa County, Arizona.

An 8-3/4" hole was carried to the total depth of the well of 3,210 feet. The formation consisted entirely of salt.

Three intervals in the salt were cored. These were 1900-1950, 2600-2650, and 2950-3000. Recovery was 100% on all cores.

After reaching total depth, gamma ray and density logs were run. Upon completion of logging, 7" OD, 23#, K-55 casing was run and hung at 2,700 feet GL. After the 7" was hung, 4-1/2" OD, 9.5#, K-55 casing was run and hung at 3,192 feet GL and the well was complete.

The rig was released at 7:10 p.m., December 30, 1974.

For your records, I am attaching copies of Form 4, Completion Report. Copies of the logs run will be sent under separate cover.

Sincerely yours,

H. H. Holloway
Chief Drilling Engineer

HHH:lo

Encl.

RECEIVED
5

FENIX & SCISSON, INC.
5805 EAST FIFTEENTH STREET
TULSA, OKLAHOMA

PLEASE REPLY TO:
P. O. Box 15609
TULSA, OKLAHOMA 74115

PHONE (918) 835-9471
TWX No. (910) 845-2108
CABLE ADDRESS: FENSON TULSA

January 2, 1975

Arizona Oil & Gas
Conservation Commission
4515 N. 7th Ave.
Phoenix, Arizona 85013

ATTENTION: Mr. Bill Allen

Gentlemen:

Enclosed, for your files, are copies of various logging surveys of the Cal Gas Storage Well No. 2 located east of the Luke Airforce Base on the Cal Gas storage site.

Surveys taken were Compensated Formation Density, and Caliper logs of the interval from the surface to 1,627' and Formation Density and GR-Neutron surveys for the interval from 3,228' through 1,600'.

Very truly yours,

C. L. Hayes
Operations Supervisor

CLH/sm

RECEIVED
JAN 6 1975
O & G CONS. COMM.

FENIX & SCISSON, INC.
5805 EAST FIFTEENTH STREET
TULSA, OKLAHOMA

PLEASE REPLY TO:
P. O. BOX 15609
TULSA, OKLAHOMA 74115

PHONE (918) 835-9471
TWX NO. (910) 845-2108
CABLE ADDRESS: FENSON TULSA

December 20, 1974

Oil and Gas Conservation Commission
State of Arizona
4515 North 7th Avenue
Phoenix, Arizona 85013

Gentlemen:

The following is a progress report of the No. 2 salt solution well we are currently drilling for California Liquid Gas Corporation in Maricopa County, Arizona.

During the week 10-3/4" OD, 45.5#, K-55 casing was run and set at 1,590.16 feet ground level. The casing was cemented to the surface with 1,300 cubic feet of cement.

The rig was shutdown until 4:00 p.m. December 19 waiting on cement and for rig repairs. At present, drilling has progressed to 1,727 feet in salt.

Very truly yours,

H. H. Holloway
Chief Drilling Engineer

HHH:wi

RECEIVED
DEC 23 1974
O & G CONS. COMM.

WK

FENIX & SCISSON, INC.
5805 EAST FIFTEENTH STREET
TULSA, OKLAHOMA

PLEASE REPLY TO:
P. O. BOX 15609
TULSA, OKLAHOMA 74115

PHONE (918) 835-9471
TWX NO. (910) 845-2108
CABLE ADDRESS: FENSON TULSA

December 13, 1974

Oil and Gas Conservation Commission
State of Arizona
4515 North 7th Avenue
Phoenix, Arizona 85013

Gentlemen:

The following is a progress report of the No. 2 salt solution well we are currently drilling for California Liquid Gas Corporation in the Luke Area in Maricopa County, Arizona.

During the week drilling progressed from 1,100' to 1,625'. This depth was reached on December 10. An electric log was run and the top of the salt was picked at 1,101'. A 12-1/4" hole was drilled from the base of the surface casing to 1,625'.

After reaching the above depth, the hole was underreamed to 15" from the bottom of the surface to total depth. The formation from 1,101' to 1,625' consists entirely of salt.

A caliper survey was run for cement calculations; and, at present, we are running 10-3/4" casing.

Very truly yours,

H. H. Holloway
Chief Drilling Engineer

HHH:wi

RECEIVED
DEC 16 1974
O & G CONS. COMM.

FENIX & SCISSON, INC.
5805 EAST FIFTEENTH STREET
TULSA, OKLAHOMA

PLEASE REPLY TO:
P. O. BOX 15609
TULSA, OKLAHOMA 74115

PHONE (918) 835-9471
TWX NO. (910) 845-2108
CABLE ADDRESS: FENSON TULSA

December 6, 1974

Oil and Gas Conservation Commission
State of Arizona
4515 North 7th Avenue
Phoenix, Arizona 85013

Gentlemen:

The following is a progress report of the No. 2 salt solution well we are currently drilling for California Liquid Gas Corporation in Maricopa County, Arizona, in the Luke Area:

The well was spudded on November 28, 1974. A 17-1/2" hole was drilled to 150' and 13-3/8" OD, 54.5#, K-55 casing run. The casing was set at 127' ground level and cemented to the surface with 200 cubic feet of Class H cement.

The drilling was resumed on November 30, drilling a 12-1/4" hole. As of this date, a depth of 1,100' had been reached.

The formations encountered from the surface down to a depth of 950' were predominately sand, shale, and silt. The formation from 950 to 1,100' was mostly anhydrite stringers, and the well is currently drilling in anhydrite and shale.

Very truly yours,

H. H. Holloway
Chief Drilling Engineer

HHH:wi

RECEIVED
DEC 11 1974
O & G CONS. COMM.

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER

APPLICATION TO DRILL ☒ RE-ENTER OLD WELL ☐

CALIFORNIA LIQUID GAS CORPORATION
NAME OF COMPANY OR OPERATOR

P. O. Box 28397 | Sacramento | California 95828
Address | City | State

BC&M Drilling Company
Drilling Contractor

1128 South Lewis | Mesa, Arizona 85202
Address

DESCRIPTION OF WELL AND LEASE

Federal, State or Indian Lease Number, or if fee lease, name of lessor	Well number	Elevation (ground)
John L. Roach & Arthur E. Baker	Storage Well No. 2	1087'

Nearest distance from proposed location to property or lease line:	Distance from proposed location to nearest drilling, completed or applied—for well on the same lease:
200.92 feet	432.64 feet

Number of acres in lease:	Number of wells on lease, including this well, completed in or drilling to this reservoir:
120	2

If lease, purchased with one or more wells drilled, from whom purchased: Name Address

N/A

Well location (give footage from section lines)	Section—township—range or block and survey	Dedication (Comply with Rule 105)
2440.0' FNL & 677.64' FWL	Sec. 2, T2N, R1W, G&SRB&M	N/A

Field and reservoir (if wildcat, so state)	County
LP-Gas storage	Maricopa

Distance, in miles, and direction from nearest town or post office
7 miles west of Glendale

Proposed depth:	Rotary or cable tools	Approx. date work will start
3200	rotary	September 10, 1974
Bond Status attached Amount $5,000	Organization Report On file X Or attached	Filing Fee of $25.00 Attached X

Remarks:

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Chief Drilling Engineer of the FENIX & SCISSON, INC. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

RECEIVED
AUG 27 1974
O & G CONS. COMM.

H. H. Holloway
Signature

August 26, 1974
Date

Fenix & Scisson, Inc., is Agent for California Liquid Gas Corporation

Permit Number: 627
Approval Date: 9-4-74
Approved By: W E Allen

Notice: Before sending in this form be sure that you have given all information requested. Much unnecessary correspondence will thus be avoided.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Application to Drill or Re-enter
File Two Copies

Form No. 3

(Complete Reverse Side)

1. Operator shall outline the dedicated acreage for *both* oil and gas wells on the plat.

2. A registered professional engineer or land surveyor registered in the State of Arizona or approved by the Commission shall show on the plat the location of the well and certify this information in the space provided.

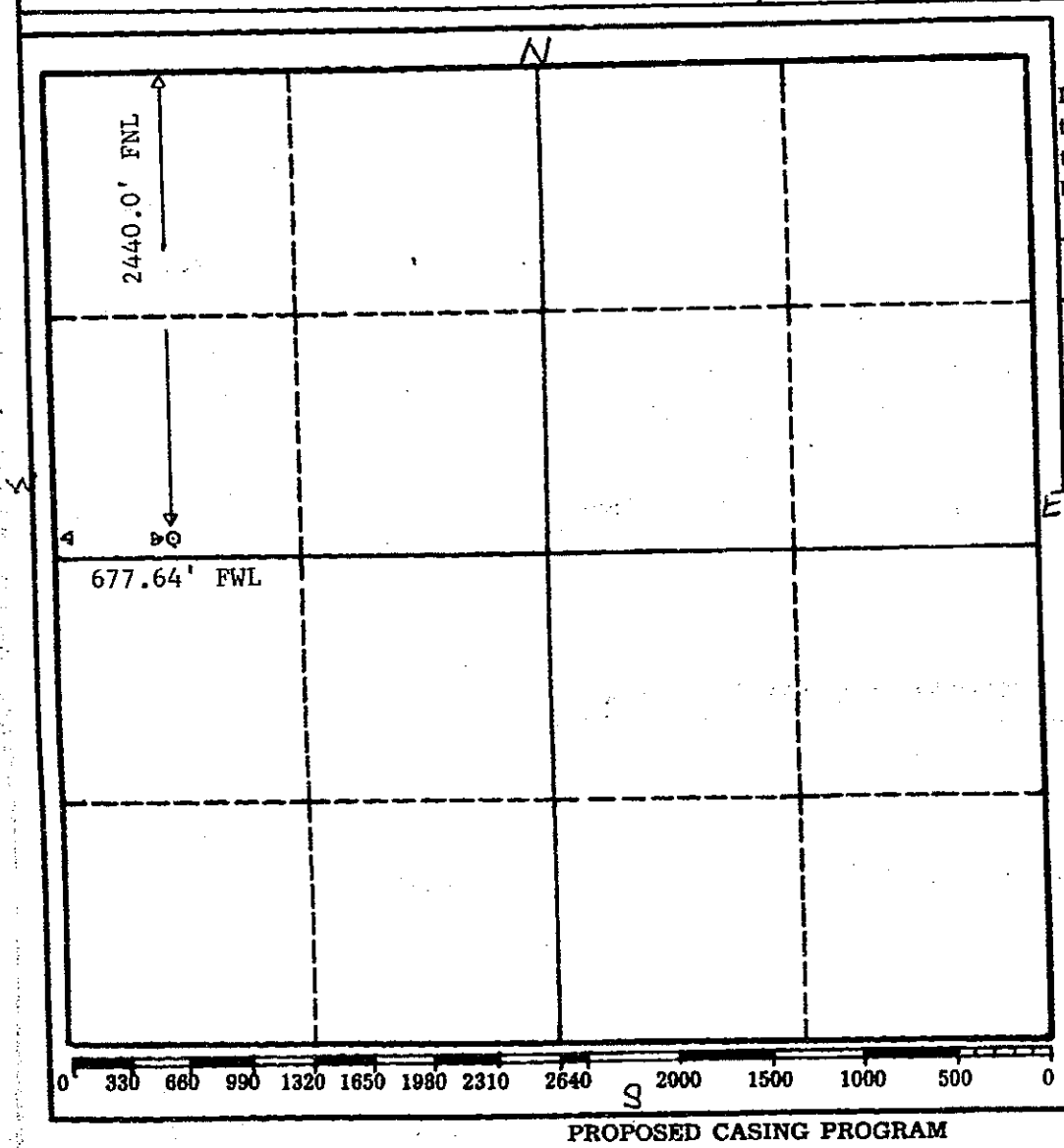
3. All distances shown on the plat must be from the outer boundaries of the Section.

4. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES_____ NO N/A

5. If the answer to question four is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES_____ NO_____. If answer is "yes," Type of Consolidation N/A

6. If the answer to question four is "no," list all the owners and their respective interests below: N/A

Owner	Land Description



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name

Position

Company

Date

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
10-3/4"	40.5#	K-55	0	1,600'	to surface	to be determined by caliper survey
7 "	20 #	K-55	0	2,800'	suspended	
4-1/2"	9.5#	K-55	0	3,200	suspended	

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: CALIFORNIA LIQUID GAS CORPORATION
(OPERATOR)

to drill a well to be known as

CALIFORNIA LIQUID GAS CORPORATION WELL NO. 2 Roach-Baker
(WELL NAME)

located 2440.0' FNL & 677.64' FWL

Section 2 Township 2N Range 1W, Maricopa County, Arizona.

The NA of said Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 4th day of September, 19 74.

OIL AND GAS CONSERVATION COMMISSION

By W. B. [illegible]
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 105, SECTION A THRU G (SPACING), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

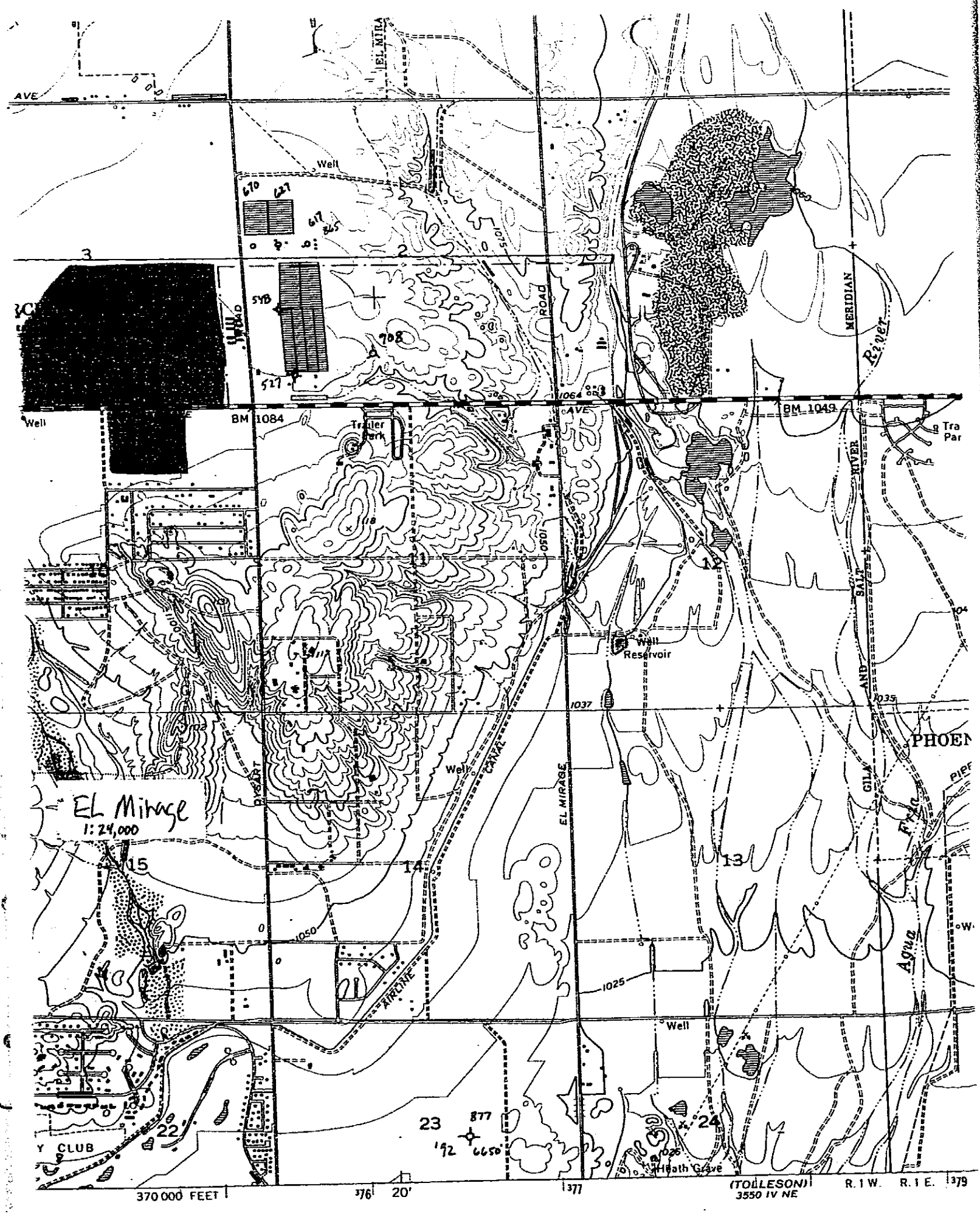
PERMIT Nº 627

RECEIPT NO. 179
API NO. 02-013-20007

SAMPLES ARE REQUIRED

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

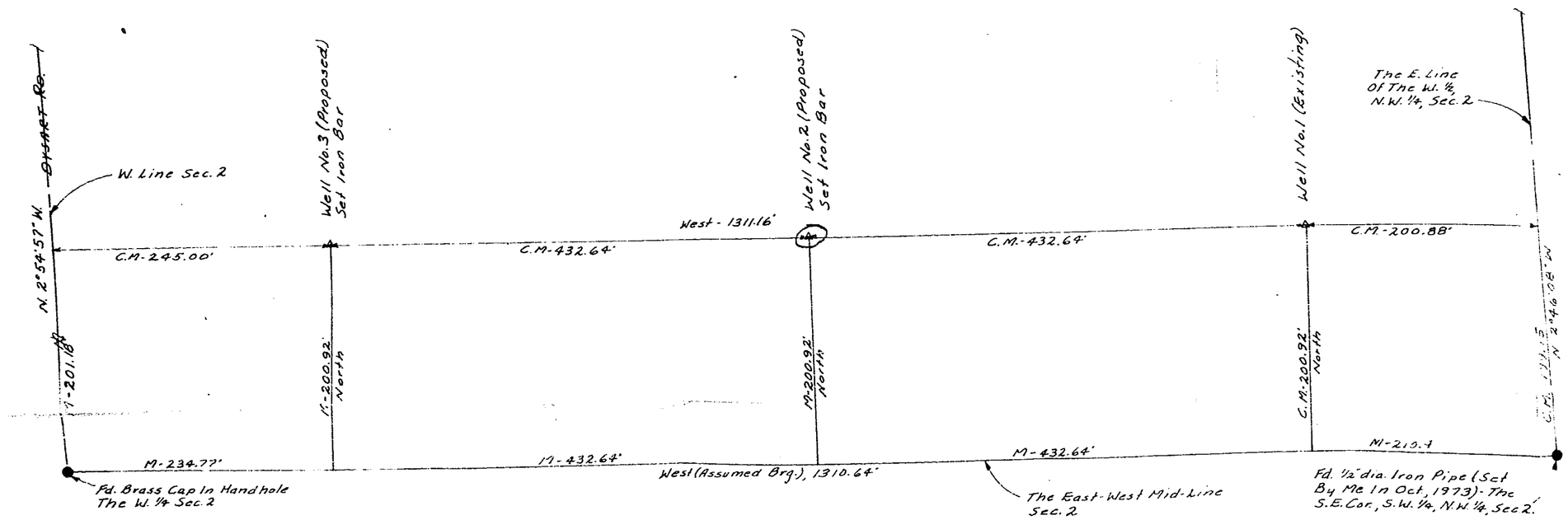
FORM NO. 27


EL MIRAGE
1:24,000
AVE
Well
BM 1084
Trailer Park
BM 1049
Tra Par
MERIDIAN
River
SALT
RIVER
AND
GILA
PHOEN
Well Reservoir
EL MIRAGE
CANAL
AIRLINE
ROAD
Agua
Fria
Heath Grave
Y CLUB
370 000 FEET
20'
(TOLLESON)
3550 IV NE
R. 1 W.
R. 1 E.

Survev

Description For Well No.3: Beginning At The West 1/4 Cor. Sec.2, T.2N, R.1W, G.&S.R.B.&M, Mar.Co., Az., thence East (Assumed Brg.), Along The East-West Mid-Line Of Said Sec.2, 234.77', Thence North, 200.92' To The Center Of Fresh Water Well No.3.

Description For Well No 2: Beginning At The West 1/4 Cor. Sec. 2, T.2 N, R.1W., G.&S.R.B.&M., Mar. Co., Az.; Thence East (Assumed Brg) Along The East-West Mid-Line Of Said Sec.2, 667.41', Thence North, 200.92' To The Center Of Fresh Water Well No.2.



REPORT OF

OF

Three Fresh Water W
In The S.W. 1/4, N.W. 1/4
G.&S.R.B.&M., Maricopa

FOR

FENIX & SC

ENGINEERS &

P.O. Bx. 15

TULSA, OKL

N

Scale

LE

● = Monument Found
● = Iron Pipe or Iron Bar Fo
◌ = 1/2" I.D. Iron Pipe Tag
R = Data From Maricopa
CR = Calculated From R
M = Measured In Field
CM = Calculated From M
Wire or Wood Fence
Chain Link Fence
Block or Stone Wal

CERTIFICATION: This will cert
done under my supervision durin

ARIZONA SUR

2802 N. SANO DR

Drawing No. L-74-

Sheet 1 of 3 Shee

REPORT OF SURVEY

OF

Three Fresh Water Well Sites Were
In The S.W. ¼, N.W. ¼, Sec. 2, T.2 N., R.1 W.
G.&S.R B.&M., Maricopa Co. Arizona

FOR

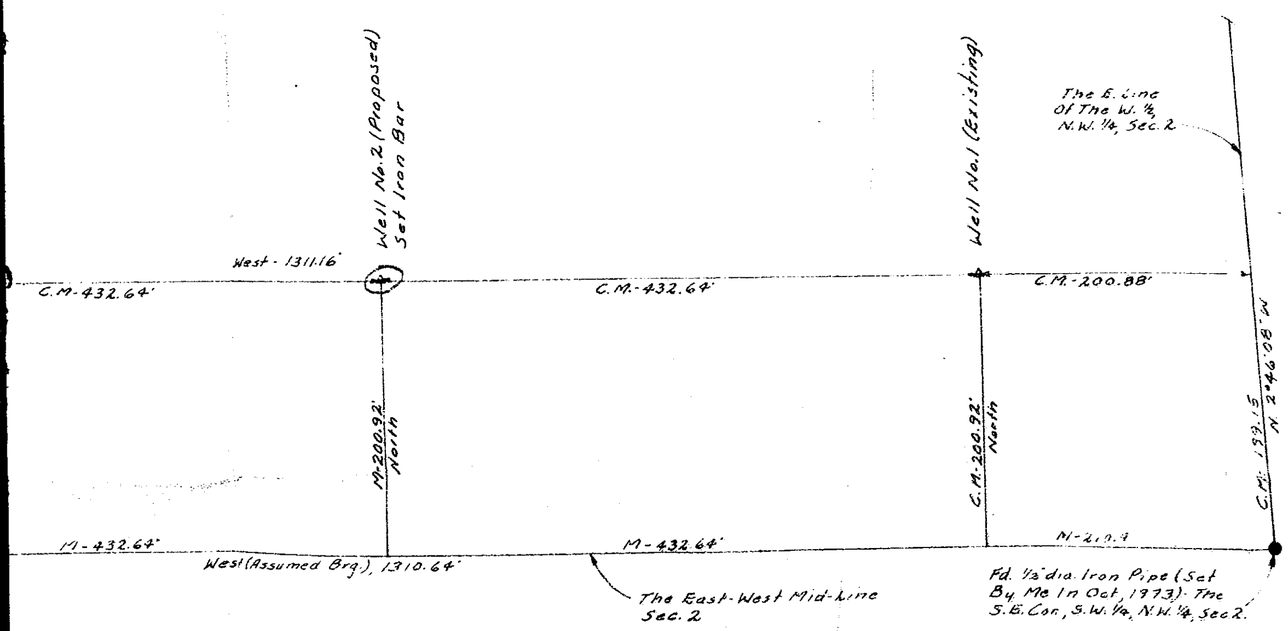
FENIX & SCISSON, INC.

ENGINEERS & CONTRACTORS

P.O. Bx 15609
TULSA, OKLAHOMA

¼ Cor. Sec. 2,
umed Brg.),
Thence

Description For Well No. 2: Beginning At The West ¼ Cor. Sec 2, T.2 N., R.1 W., G.&S.R B.&M., Mar. Co., Ariz.; Thence East (Assumed Brg.) Along The East-West Mid-Line Of Said Sec. 2, 667.41', Thence North, 200.92' To The Center Of Fresh Water Well No. 2.



N

Scale: 1" = 60'

LEGEND

- ● = Monument Found
- ● = Iron Pipe or Iron Bar Found
- ○ = 1/2" I.D. Iron Pipe Tagged L.S. 16811 Set This Survey
- R = Data From Maricopa County Records
- CR = Calculated From R
- M = Measured in Field
- CM = Calculated From M
- = Wire or Wood Fence
- = Chain Link Fence
- = Block or Stone Wall

CERTIFICATION: This will certify that the survey shown hereon was done under my supervision during the month of

Francis R. Holley

LIQUID GAS CORP. WELL
SW/NW Sec. 2-T2N-R1W, Maricopa Co.

REPORT OF SURVEY

OF

Three Fresh Water Well Sites Lying In The S.W. 1/4, N.W. 1/4, Sec. 2 T2N, R1W, G.&S.R.B.&M., Maricopa Co., Arizona

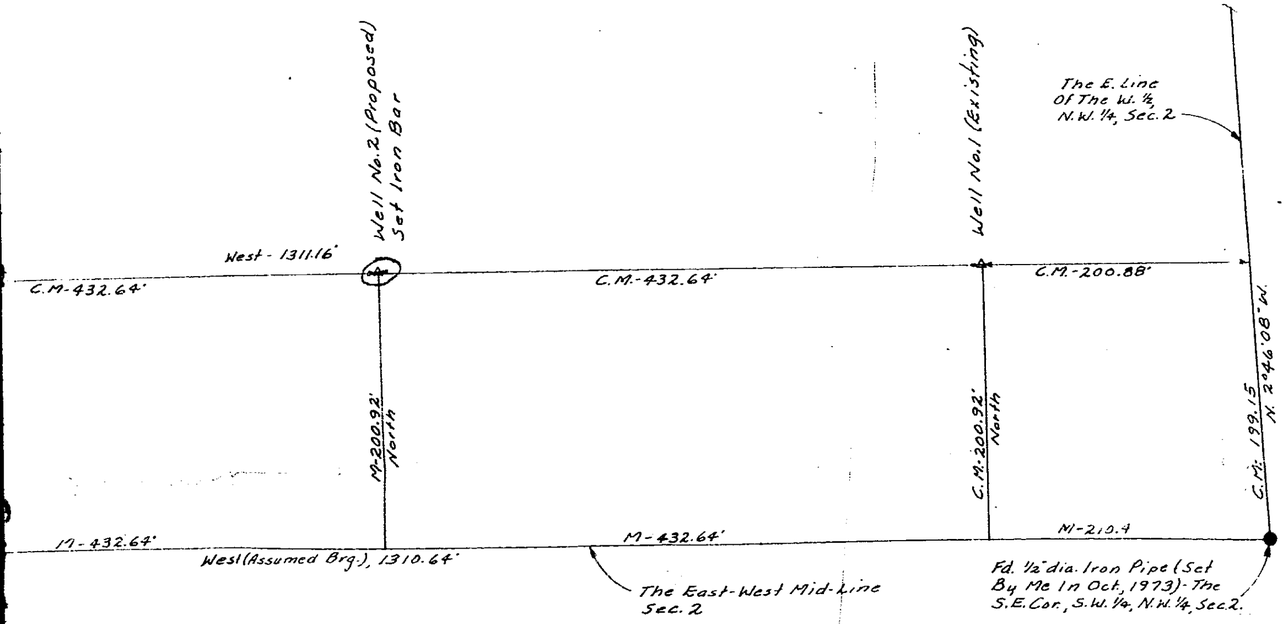
FOR.

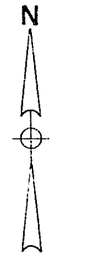
FENIX & SCISSON, INC.

ENGINEERS & CONTRACTORS

P.O. Bx. 15609
TULSA, OKLAHOMA

Description For Well No. 2: Beginning At The West 1/4 Cor. Sec. 2, T.2 N., R.1 W., G.&S.R.B.&M., Mar. Co., Az.; Thence East (Assumed Brg.) Along The East-West Mid-Line Of Said Sec. 2, 667.41', Thence North, 200.92' To The Center Of Fresh Water Well No. 2.





Scale: 1" = 60'

LEGEND

- ● = Monument Found
- ● = Iron Pipe or Iron Bar Found
- ○ = 1/2" I.D. Iron Pipe Tagged L.S.-1681 Set This Survey
- R = Data From Maricopa County Records
- CR = Calculated From R
- M = Measured in Field
- CM = Calculated From M
- = Wire or Wood Fence
- = Chain Link Fence
- = Block or Stone Wall

CERTIFICATION: This will certify that the survey shown hereon was done under my supervision during the month of

Eugene R. Kelley
7/29/74

ARIZONA SURVEYING SERVICE

2802 W. SOLANO DR., N., PHOENIX, ARIZONA
Drawing No. L-74-6807 Phone: 242-0539
Sheet 1 of 3 Sheets.

LIQUID GAS CORP. WELL
SW/NW Sec 2-T2N-R1W, Maricopa Co

SONARWIRE

SONARWIRE

INC.

SONARWIRE, INC.
P.O. BOX 576
ABITA SPRINGS, LA 70420

504-893-9221

Survey conducted by: Sean McCool

AMERIGAS
GLENDALE, AZ
STORAGE WELL NO. 2
MARCH 4, 1999
SONAR-THRU-PIPE SURVEY

627

Survey from 1662 ft. to 2890 ft.
Sonar T.D. at 2905 ft.
8 5/8 inch cemented casing at 1662 ft.
5 ½ inch tubing at 2879 ft.
Zero sonar tool at C.H.F.
Site personnel: Mr. Mike Haynes (PB-KBB)

JUN 1999
ARIZONA GEOLOGICAL SURVEY

SONARWIRE INC.
Depth versus Volume

AMERIGAS
GLENDALE, AZ

STORAGE WELL NO. 2
Thu, Mar 4, 1999

Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
1663	8.0	8.0	1.4	1.4
1664	8.0	16.0	1.4	2.9
1665	7.9	24.0	1.4	4.3
1666	7.9	31.8	1.4	5.7
1667	7.8	39.7	1.4	7.1
1668	7.8	47.4	1.4	8.4
1669	7.7	55.2	1.4	9.8
1670	7.7	62.9	1.4	11.2
1671	7.6	70.5	1.4	12.6
1672	7.6	78.1	1.4	13.9
1673	7.5	85.6	1.3	15.2
1674	7.5	93.1	1.3	16.6
1675	7.4	100.5	1.3	17.9
1676	7.4	107.9	1.3	19.2
1677	7.3	115.2	1.3	20.5
1678	7.3	122.5	1.3	21.8
1679	7.2	129.8	1.3	23.1
1680	7.2	137.0	1.3	24.4
1681	7.2	144.1	1.3	25.7
1682	7.1	151.2	1.3	26.9
1683	7.1	158.3	1.3	28.2
1684	7.0	165.3	1.2	29.4
1685	7.0	172.3	1.2	30.7
1686	6.9	179.2	1.2	31.9
1687	6.9	186.1	1.2	33.1
1688	6.8	192.9	1.2	34.4
1689	6.8	199.7	1.2	35.6
1690	6.7	206.4	1.2	36.8
1691	6.7	213.1	1.2	38.0
1692	6.7	219.8	1.2	39.1
1693	6.6	226.4	1.2	40.3
1694	6.6	232.9	1.2	41.5
1695	6.5	239.5	1.2	42.6
1696	6.5	245.9	1.2	43.8
1697	6.4	252.4	1.1	45.0
1698	6.4	258.8	1.1	46.1
1699	6.4	265.1	1.1	47.2
1700	6.3	271.4	1.1	48.3
1701	6.3	277.7	1.1	49.5
1702	6.2	283.9	1.1	50.6
1703	6.2	290.1	1.1	51.7
1704	6.1	296.3	1.1	52.8
1705	6.1	302.4	1.1	53.9
1706	6.1	308.4	1.1	54.9
1707	6.0	314.4	1.1	56.0
1708	6.0	320.4	1.1	57.1

AMERIGAS
GLENDALE, AZ

STORAGE WELL NO. 2
Thu, Mar 4, 1999

Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
1709	5.9	326.4	1.1	58.1
1710	5.9	332.3	1.1	59.2
1711	5.9	338.1	1.0	60.2
1712	5.8	344.0	1.0	61.3
1713	5.8	349.8	1.0	62.3
1714	5.8	355.5	1.0	63.3
1715	5.7	361.2	1.0	64.3
1716	5.7	366.9	1.0	65.3
1717	5.6	372.5	1.0	66.4
1718	5.6	378.1	1.0	67.4
1719	5.6	383.7	1.0	68.3
1720	5.5	389.2	1.0	69.3
1721	5.5	394.7	1.0	70.3
1722	5.5	400.2	1.0	71.3
1723	5.4	405.6	1.0	72.2
1724	5.4	411.0	1.0	73.2
1725	5.3	416.3	1.0	74.2
1726	5.3	421.6	0.9	75.1
1727	5.3	426.9	0.9	76.0
1728	5.2	432.2	0.9	77.0
1729	5.2	437.4	0.9	77.9
1730	5.2	442.6	0.9	78.8
1731	5.1	447.7	0.9	79.7
1732	5.1	452.8	0.9	80.6
1733	5.1	457.9	0.9	81.6
1734	5.0	462.9	0.9	82.5
1735	5.0	467.9	0.9	83.3
1736	5.0	472.9	0.9	84.2
1737	4.9	477.9	0.9	85.1
1738	4.9	482.8	0.9	86.0
1739	4.9	487.7	0.9	86.9
1740	4.9	492.5	0.9	87.7
1741	4.8	497.3	0.9	88.6
1742	4.8	502.1	0.9	89.4
1743	4.8	506.9	0.8	90.3
1744	4.7	511.6	0.8	91.1
1745	4.7	516.3	0.8	92.0
1746	4.7	521.0	0.8	92.8
1747	4.6	525.6	0.8	93.6
1748	4.6	530.2	0.8	94.4
1749	4.6	534.8	0.8	95.3
1750	4.6	539.4	0.8	96.1
1751	4.5	543.9	0.8	96.9
1752	4.5	548.4	0.8	97.7
1753	4.6	553.0	0.8	98.5
1754	4.6	557.6	0.8	99.3
1755	4.6	562.2	0.8	100.1
1756	4.6	566.8	0.8	101.0

AMERIGAS
GLENDALE, AZ

STORAGE WELL NO. 2
Thu, Mar 4, 1999

Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
1757	4.7	571.5	0.8	101.8
1758	4.7	576.2	0.8	102.6
1759	4.7	580.9	0.8	103.5
1760	4.7	585.6	0.8	104.3
1761	4.8	590.4	0.8	105.1
1762	4.8	595.1	0.9	106.0
1763	4.8	599.9	0.9	106.9
1764	4.8	604.8	0.9	107.7
1765	4.8	609.6	0.9	108.6
1766	4.9	614.5	0.9	109.4
1767	4.9	619.4	0.9	110.3
1768	4.9	624.3	0.9	111.2
1769	4.9	629.2	0.9	112.1
1770	5.0	634.2	0.9	113.0
1771	5.0	639.2	0.9	113.8
1772	5.0	644.2	0.9	114.7
1773	5.0	649.2	0.9	115.6
1774	5.1	654.3	0.9	116.5
1775	5.1	659.4	0.9	117.4
1776	5.1	664.5	0.9	118.3
1777	5.1	669.6	0.9	119.3
1778	5.2	674.8	0.9	120.2
1779	5.2	680.0	0.9	121.1
1780	5.2	685.2	0.9	122.0
1781	5.2	690.4	0.9	123.0
1782	5.3	695.6	0.9	123.9
1783	5.3	700.9	0.9	124.8
1784	5.3	706.2	0.9	125.8
1785	5.3	711.6	0.9	126.7
1786	5.4	716.9	1.0	127.7
1787	5.4	722.3	1.0	128.6
1788	5.4	727.7	1.0	129.6
1789	5.4	733.2	1.0	130.6
1790	5.5	738.6	1.0	131.6
1791	5.5	744.1	1.0	132.5
1792	5.5	749.6	1.0	133.5
1793	5.5	755.1	1.0	134.5
1794	5.6	760.7	1.0	135.5
1795	5.6	766.3	1.0	136.5
1796	5.6	771.9	1.0	137.5
1797	5.6	777.6	1.0	138.5
1798	5.7	783.2	1.0	139.5
1799	5.7	788.9	1.0	140.5
1800	5.7	794.6	1.0	141.5
1801	5.7	800.4	1.0	142.6
1802	5.8	806.2	1.0	143.6
1803	5.9	812.1	1.0	144.6
1804	6.0	818.1	1.1	145.7

AMERIGAS
GLENDALE, AZ

STORAGE WELL NO. 2
Thu, Mar 4, 1999

Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
1805	6.0	824.1	1.1	146.8
1806	6.1	830.2	1.1	147.9
1807	6.2	836.4	1.1	149.0
1808	6.3	842.7	1.1	150.1
1809	6.3	849.0	1.1	151.2
1810	6.4	855.4	1.1	152.4
1811	6.5	861.9	1.2	153.5
1812	6.6	868.5	1.2	154.7
1813	6.7	875.2	1.2	155.9
1814	6.7	881.9	1.2	157.1
1815	6.8	888.7	1.2	158.3
1816	6.9	895.6	1.2	159.5
1817	7.0	902.6	1.2	160.8
1818	7.1	909.6	1.3	162.0
1819	7.1	916.8	1.3	163.3
1820	7.2	924.0	1.3	164.6
1821	7.3	931.3	1.3	165.9
1822	7.4	938.7	1.3	167.2
1823	7.5	946.2	1.3	168.5
1824	7.6	953.8	1.3	169.9
1825	7.7	961.4	1.4	171.2
1826	7.7	969.2	1.4	172.6
1827	7.8	977.0	1.4	174.0
1828	7.9	984.9	1.4	175.4
1829	8.0	992.9	1.4	176.8
1830	8.1	1001.0	1.4	178.3
1831	8.2	1009.2	1.5	179.7
1832	8.3	1017.5	1.5	181.2
1833	8.4	1025.8	1.5	182.7
1834	8.5	1034.3	1.5	184.2
1835	8.6	1042.8	1.5	185.7
1836	8.6	1051.5	1.5	187.3
1837	8.7	1060.2	1.6	188.8
1838	8.8	1069.1	1.6	190.4
1839	8.9	1078.0	1.6	192.0
1840	9.0	1087.0	1.6	193.6
1841	9.1	1096.2	1.6	195.2
1842	9.2	1105.4	1.6	196.9
1843	9.3	1114.7	1.7	198.5
1844	9.4	1124.1	1.7	200.2
1845	9.5	1133.6	1.7	201.9
1846	9.6	1143.2	1.7	203.6
1847	9.7	1153.0	1.7	205.3
1848	9.8	1162.8	1.7	207.1
1849	9.9	1172.7	1.8	208.9
1850	10.0	1182.7	1.8	210.6
1851	10.1	1192.8	1.8	212.5
1852	10.4	1203.2	1.8	214.3

AMERIGAS
GLENDALE, AZ

STORAGE WELL NO. 2
Thu, Mar 4, 1999

Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
1853	10.6	1213.8	1.9	216.2
1854	10.9	1224.7	1.9	218.1
1855	11.2	1235.9	2.0	220.1
1856	11.4	1247.3	2.0	222.2
1857	11.7	1259.1	2.1	224.2
1858	12.0	1271.0	2.1	226.4
1859	12.3	1283.3	2.2	228.6
1860	12.6	1295.9	2.2	230.8
1861	12.9	1308.7	2.3	233.1
1862	13.2	1321.9	2.3	235.4
1863	13.5	1335.4	2.4	237.8
1864	13.8	1349.1	2.5	240.3
1865	14.1	1363.2	2.5	242.8
1866	14.4	1377.6	2.6	245.4
1867	14.7	1392.3	2.6	248.0
1868	15.0	1407.3	2.7	250.7
1869	15.4	1422.7	2.7	253.4
1870	15.7	1438.4	2.8	256.2
1871	16.0	1454.4	2.9	259.0
1872	16.2	1470.6	2.9	261.9
1873	16.4	1487.1	2.9	264.9
1874	16.6	1503.7	3.0	267.8
1875	16.8	1520.5	3.0	270.8
1876	17.0	1537.6	3.0	273.9
1877	17.3	1554.8	3.1	276.9
1878	17.5	1572.3	3.1	280.0
1879	17.7	1590.0	3.2	283.2
1880	17.9	1607.9	3.2	286.4
1881	18.1	1626.1	3.2	289.6
1882	18.4	1644.4	3.3	292.9
1883	18.6	1663.0	3.3	296.2
1884	18.8	1681.8	3.4	299.5
1885	19.1	1700.9	3.4	302.9
1886	19.3	1720.2	3.4	306.4
1887	19.5	1739.7	3.5	309.9
1888	19.8	1759.5	3.5	313.4
1889	20.0	1779.5	3.6	316.9
1890	20.3	1799.8	3.6	320.5
1891	20.5	1820.3	3.7	324.2
1892	20.8	1841.0	3.7	327.9
1893	21.0	1862.1	3.7	331.6
1894	21.3	1883.3	3.8	335.4
1895	21.5	1904.9	3.8	339.3
1896	21.8	1926.7	3.9	343.2
1897	22.1	1948.8	3.9	347.1
1898	22.3	1971.1	4.0	351.1
1899	22.6	1993.7	4.0	355.1
1900	22.9	2016.6	4.1	359.2

AMERIGAS
GLENDALE, AZ

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Thu, Mar 4, 1999

Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
1901	23.2	2039.8	4.1	363.3
1902	23.8	2063.6	4.2	367.5
1903	24.4	2088.0	4.3	371.9
1904	25.0	2113.0	4.5	376.3
1905	25.7	2138.7	4.6	380.9
1906	26.3	2165.0	4.7	385.6
1907	27.0	2192.0	4.8	390.4
1908	27.7	2219.7	4.9	395.3
1909	28.4	2248.1	5.0	400.4
1910	29.0	2277.1	5.2	405.6
1911	29.7	2306.8	5.3	410.9
1912	30.5	2337.3	5.4	416.3
1913	31.2	2368.5	5.6	421.8
1914	31.9	2400.4	5.7	427.5
1915	32.7	2433.0	5.8	433.3
1916	33.4	2466.4	5.9	439.3
1917	34.2	2500.6	6.1	445.4
1918	34.9	2535.6	6.2	451.6
1919	35.7	2571.3	6.4	458.0
1920	36.5	2607.8	6.5	464.5
1921	37.3	2645.1	6.6	471.1
1922	37.7	2682.8	6.7	477.8
1923	38.1	2721.0	6.8	484.6
1924	38.5	2759.5	6.9	491.5
1925	38.9	2798.4	6.9	498.4
1926	39.4	2837.8	7.0	505.4
1927	39.8	2877.6	7.1	512.5
1928	40.2	2917.8	7.2	519.7
1929	40.6	2958.4	7.2	526.9
1930	41.0	2999.4	7.3	534.2
1931	41.5	3040.9	7.4	541.6
1932	41.9	3082.8	7.5	549.1
1933	42.3	3125.2	7.5	556.6
1934	42.8	3167.9	7.6	564.2
1935	43.2	3211.2	7.7	571.9
1936	43.7	3254.8	7.8	579.7
1937	44.1	3298.9	7.9	587.6
1938	44.6	3343.5	7.9	595.5
1939	45.0	3388.5	8.0	603.5
1940	45.5	3434.0	8.1	611.6
1941	45.9	3479.9	8.2	619.8
1942	47.3	3527.2	8.4	628.2
1943	48.6	3575.8	8.7	636.9
1944	50.0	3625.8	8.9	645.8
1945	51.4	3677.1	9.2	654.9
1946	52.8	3729.9	9.4	664.3
1947	54.2	3784.2	9.7	674.0
1948	55.7	3839.9	9.9	683.9

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Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
1949	57.2	3897.0	10.2	694.1
1950	58.7	3955.7	10.4	704.5
1951	60.2	4015.9	10.7	715.3
1952	61.7	4077.6	11.0	726.3
1953	63.3	4140.9	11.3	737.5
1954	64.9	4205.8	11.6	749.1
1955	66.5	4272.2	11.8	760.9
1956	68.1	4340.3	12.1	773.0
1957	69.7	4410.1	12.4	785.5
1958	71.4	4481.5	12.7	798.2
1959	73.1	4554.6	13.0	811.2
1960	74.8	4629.4	13.3	824.5
1961	76.5	4705.9	13.6	838.2
1962	77.5	4783.4	13.8	852.0
1963	78.4	4861.9	14.0	865.9
1964	79.4	4941.3	14.1	880.1
1965	80.4	5021.7	14.3	894.4
1966	81.4	5103.1	14.5	908.9
1967	82.4	5185.4	14.7	923.6
1968	83.4	5268.8	14.8	938.4
1969	84.4	5353.2	15.0	953.4
1970	85.4	5438.6	15.2	968.6
1971	86.4	5525.0	15.4	984.0
1972	87.4	5612.4	15.6	999.6
1973	88.5	5700.9	15.8	1015.4
1974	89.5	5790.4	15.9	1031.3
1975	90.6	5881.0	16.1	1047.5
1976	91.7	5972.7	16.3	1063.8
1977	92.7	6065.4	16.5	1080.3
1978	93.8	6159.3	16.7	1097.0
1979	94.9	6254.2	16.9	1113.9
1980	96.0	6350.2	17.1	1131.0
1981	97.1	6447.3	17.3	1148.3
1982	98.6	6545.9	17.6	1165.9
1983	100.1	6646.1	17.8	1183.7
1984	101.7	6747.7	18.1	1201.8
1985	103.2	6850.9	18.4	1220.2
1986	104.8	6955.7	18.7	1238.9
1987	106.4	7062.0	18.9	1257.8
1988	108.0	7170.0	19.2	1277.0
1989	109.6	7279.6	19.5	1296.5
1990	111.2	7390.8	19.8	1316.4
1991	112.9	7503.7	20.1	1336.5
1992	114.6	7618.2	20.4	1356.9
1993	116.3	7734.5	20.7	1377.6
1994	118.0	7852.5	21.0	1398.6
1995	119.7	7972.2	21.3	1419.9
1996	121.5	8093.7	21.6	1441.6

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Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
1997	123.3	8217.0	22.0	1463.5
1998	125.0	8342.0	22.3	1485.8
1999	126.9	8468.9	22.6	1508.4
2000	128.7	8597.6	22.9	1531.3
2001	130.5	8728.1	23.3	1554.5
2002	130.8	8858.9	23.3	1577.8
2003	131.1	8990.0	23.4	1601.2
2004	131.4	9121.4	23.4	1624.6
2005	131.8	9253.2	23.5	1648.1
2006	132.1	9385.3	23.5	1671.6
2007	132.5	9517.8	23.6	1695.2
2008	132.9	9650.7	23.7	1718.9
2009	133.3	9784.0	23.7	1742.6
2010	133.7	9917.7	23.8	1766.4
2011	134.2	10051.9	23.9	1790.3
2012	136.6	10188.5	24.3	1814.7
2013	139.0	10327.6	24.8	1839.4
2014	141.5	10469.1	25.2	1864.6
2015	144.1	10613.2	25.7	1890.3
2016	146.6	10759.8	26.1	1916.4
2017	149.3	10909.1	26.6	1943.0
2018	151.9	11061.0	27.1	1970.1
2019	154.7	11215.7	27.5	1997.6
2020	157.4	11373.1	28.0	2025.6
2021	160.3	11533.4	28.5	2054.2
2022	164.2	11697.6	29.3	2083.4
2023	168.3	11865.9	30.0	2113.4
2024	172.5	12038.4	30.7	2144.1
2025	176.7	12215.0	31.5	2175.6
2026	181.0	12396.1	32.2	2207.8
2027	185.4	12581.5	33.0	2240.9
2028	189.9	12771.4	33.8	2274.7
2029	194.5	12965.8	34.6	2309.3
2030	199.1	13165.0	35.5	2344.8
2031	203.9	13368.9	36.3	2381.1
2032	206.3	13575.1	36.7	2417.8
2033	208.7	13783.8	37.2	2455.0
2034	211.1	13994.9	37.6	2492.6
2035	213.6	14208.5	38.0	2530.6
2036	216.1	14424.6	38.5	2569.1
2037	218.7	14643.3	39.0	2608.1
2038	221.3	14864.6	39.4	2647.5
2039	223.9	15088.5	39.9	2687.4
2040	226.6	15315.1	40.4	2727.7
2041	229.3	15544.4	40.8	2768.6
2042	230.6	15775.0	41.1	2809.6
2043	231.9	16006.9	41.3	2851.0
2044	233.3	16240.2	41.6	2892.5

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Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
2045	234.7	16474.9	41.8	2934.3
2046	236.1	16711.0	42.1	2976.4
2047	237.6	16948.6	42.3	3018.7
2048	239.1	17187.7	42.6	3061.3
2049	240.6	17428.2	42.8	3104.1
2050	242.1	17670.3	43.1	3147.2
2051	243.7	17914.0	43.4	3190.6
2052	245.7	18159.7	43.8	3234.4
2053	247.8	18407.4	44.1	3278.5
2054	249.9	18657.3	44.5	3323.0
2055	252.0	18909.3	44.9	3367.9
2056	254.2	19163.6	45.3	3413.2
2057	256.5	19420.0	45.7	3458.9
2058	258.7	19678.8	46.1	3504.9
2059	261.0	19939.8	46.5	3551.4
2060	263.4	20203.2	46.9	3598.3
2061	265.8	20469.0	47.3	3645.7
2062	267.2	20736.1	47.6	3693.3
2063	268.6	21004.7	47.8	3741.1
2064	270.0	21274.8	48.1	3789.2
2065	271.6	21546.3	48.4	3837.6
2066	273.1	21819.5	48.6	3886.2
2067	274.8	22094.3	48.9	3935.2
2068	276.4	22370.7	49.2	3984.4
2069	278.2	22648.9	49.5	4033.9
2070	280.0	22928.8	49.9	4083.8
2071	281.8	23210.6	50.2	4134.0
2072	286.5	23497.2	51.0	4185.0
2073	291.3	23788.5	51.9	4236.9
2074	296.2	24084.7	52.8	4289.7
2075	301.1	24385.8	53.6	4343.3
2076	306.1	24691.9	54.5	4397.8
2077	311.1	25003.0	55.4	4453.2
2078	316.2	25319.2	56.3	4509.6
2079	321.4	25640.6	57.2	4566.8
2080	326.6	25967.2	58.2	4625.0
2081	331.9	26299.1	59.1	4684.1
2082	334.2	26633.3	59.5	4743.6
2083	336.5	26969.7	59.9	4803.5
2084	338.8	27308.5	60.3	4863.9
2085	341.1	27649.7	60.8	4924.6
2086	343.5	27993.2	61.2	4985.8
2087	345.9	28339.1	61.6	5047.4
2088	348.3	28687.5	62.0	5109.5
2089	350.8	29038.3	62.5	5171.9
2090	353.3	29391.6	62.9	5234.9
2091	355.8	29747.3	63.4	5298.2
2092	360.5	30107.9	64.2	5362.4

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Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
2093	365.4	30473.3	65.1	5427.5
2094	370.3	30843.6	66.0	5493.5
2095	375.3	31218.8	66.8	5560.3
2096	380.3	31599.2	67.7	5628.1
2097	385.4	31984.6	68.6	5696.7
2098	390.6	32375.2	69.6	5766.3
2099	395.8	32771.0	70.5	5836.8
2100	401.1	33172.0	71.4	5908.2
2101	406.4	33578.5	72.4	5980.6
2102	408.9	33987.4	72.8	6053.4
2103	411.4	34398.8	73.3	6126.7
2104	414.0	34812.8	73.7	6200.4
2105	416.6	35229.4	74.2	6274.6
2106	419.2	35648.6	74.7	6349.3
2107	421.9	36070.5	75.1	6424.4
2108	424.6	36495.0	75.6	6500.0
2109	427.3	36922.3	76.1	6576.2
2110	430.0	37352.4	76.6	6652.7
2111	432.8	37785.2	77.1	6729.8
2112	433.3	38218.5	77.2	6807.0
2113	433.9	38652.4	77.3	6884.3
2114	434.5	39086.9	77.4	6961.7
2115	435.1	39521.9	77.5	7039.2
2116	435.7	39957.6	77.6	7116.8
2117	436.3	40394.0	77.7	7194.5
2118	437.0	40831.0	77.8	7272.3
2119	437.7	41268.7	78.0	7350.3
2120	438.5	41707.2	78.1	7428.4
2121	439.3	42146.5	78.2	7506.6
2122	442.5	42589.0	78.8	7585.4
2123	445.9	43034.9	79.4	7664.8
2124	449.2	43484.1	80.0	7744.9
2125	452.6	43936.7	80.6	7825.5
2126	456.0	44392.7	81.2	7906.7
2127	459.4	44852.1	81.8	7988.5
2128	462.9	45315.0	82.4	8071.0
2129	466.4	45781.4	83.1	8154.0
2130	469.9	46251.2	83.7	8237.7
2131	473.4	46724.7	84.3	8322.0
2132	474.8	47199.4	84.6	8406.6
2133	476.2	47675.6	84.8	8491.4
2134	477.6	48153.2	85.1	8576.5
2135	479.1	48632.3	85.3	8661.8
2136	480.5	49112.8	85.6	8747.4
2137	482.1	49594.9	85.9	8833.2
2138	483.6	50078.5	86.1	8919.4
2139	485.2	50563.7	86.4	9005.8
2140	486.8	51050.5	86.7	9092.5

AMERIGAS
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Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
2141	488.5	51538.9	87.0	9179.5
2142	490.8	52029.7	87.4	9266.9
2143	493.2	52522.9	87.8	9354.7
2144	495.5	53018.4	88.3	9443.0
2145	497.9	53516.3	88.7	9531.7
2146	500.3	54016.7	89.1	9620.8
2147	502.7	54519.4	89.5	9710.3
2148	505.2	55024.6	90.0	9800.3
2149	507.6	55532.2	90.4	9890.7
2150	510.1	56042.3	90.9	9981.6
2151	512.6	56554.9	91.3	10072.9
2152	516.7	57071.6	92.0	10164.9
2153	520.8	57592.3	92.8	10257.6
2154	524.9	58117.2	93.5	10351.1
2155	529.0	58646.3	94.2	10445.3
2156	533.2	59179.5	95.0	10540.3
2157	537.4	59716.9	95.7	10636.0
2158	541.6	60258.5	96.5	10732.5
2159	545.9	60804.4	97.2	10829.7
2160	550.2	61354.5	98.0	10927.7
2161	554.5	61909.0	98.8	11026.5
2162	556.2	62465.2	99.1	11125.5
2163	558.0	63023.2	99.4	11224.9
2164	559.8	63583.0	99.7	11324.6
2165	561.6	64144.6	100.0	11424.6
2166	563.4	64708.1	100.4	11525.0
2167	565.3	65273.4	100.7	11625.7
2168	567.2	65840.5	101.0	11726.7
2169	569.1	66409.6	101.4	11828.1
2170	571.0	66980.6	101.7	11929.8
2171	572.9	67553.6	102.0	12031.8
2172	573.8	68127.3	102.2	12134.0
2173	574.6	68702.0	102.3	12236.4
2174	575.6	69277.5	102.5	12338.9
2175	576.5	69854.0	102.7	12441.5
2176	577.5	70431.5	102.9	12544.4
2177	578.5	71010.0	103.0	12647.4
2178	579.5	71589.5	103.2	12750.6
2179	580.6	72170.1	103.4	12854.0
2180	581.7	72751.8	103.6	12957.7
2181	582.8	73334.6	103.8	13061.5
2182	628.4	73963.0	111.9	13173.4
2183	675.8	74638.7	120.4	13293.7
2184	725.1	75363.8	129.1	13422.9
2185	776.3	76140.2	138.3	13561.2
2186	829.5	76969.7	147.7	13708.9
2187	884.6	77854.2	157.5	13866.4
2188	941.5	78795.8	167.7	14034.1

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Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
2189	1000.4	79796.2	178.2	14212.3
2190	1061.2	80857.4	189.0	14401.3
2191	1123.9	81981.3	200.2	14601.5
2192	1131.4	83112.7	201.5	14803.0
2193	1138.9	84251.5	202.8	15005.8
2194	1146.4	85397.9	204.2	15210.0
2195	1154.1	86552.0	205.5	15415.6
2196	1161.8	87713.8	206.9	15622.5
2197	1169.5	88883.3	208.3	15830.8
2198	1177.3	90060.6	209.7	16040.5
2199	1185.2	91245.8	211.1	16251.6
2200	1193.2	92439.0	212.5	16464.1
2201	1201.2	93640.2	213.9	16678.0
2202	1209.2	94849.4	215.4	16893.4
2203	1217.4	96066.9	216.8	17110.2
2204	1225.8	97292.7	218.3	17328.6
2205	1234.3	98527.0	219.8	17548.4
2206	1243.0	99769.9	221.4	17769.8
2207	1251.8	101021.7	222.9	17992.7
2208	1260.7	102282.4	224.5	18217.3
2209	1269.8	103552.1	226.2	18443.4
2210	1279.0	104831.1	227.8	18671.2
2211	1288.4	106119.5	229.5	18900.7
2212	1294.1	107413.6	230.5	19131.2
2213	1299.9	108713.6	231.5	19362.7
2214	1305.8	110019.3	232.6	19595.3
2215	1311.6	111331.0	233.6	19828.9
2216	1317.6	112648.5	234.7	20063.6
2217	1323.6	113972.1	235.7	20299.3
2218	1329.6	115301.7	236.8	20536.1
2219	1335.7	116637.5	237.9	20774.0
2220	1341.9	117979.3	239.0	21013.0
2221	1348.0	119327.4	240.1	21253.1
2222	1357.3	120684.7	241.8	21494.9
2223	1366.7	122051.4	243.4	21738.3
2224	1376.1	123427.5	245.1	21983.4
2225	1385.6	124813.1	246.8	22230.2
2226	1395.2	126208.3	248.5	22478.7
2227	1404.8	127613.1	250.2	22728.9
2228	1414.6	129027.7	251.9	22980.8
2229	1424.3	130452.0	253.7	23234.5
2230	1434.2	131886.2	255.4	23489.9
2231	1444.1	133330.3	257.2	23747.2
2232	1452.1	134782.4	258.6	24005.8
2233	1460.1	136242.5	260.1	24265.8
2234	1468.2	137710.7	261.5	24527.3
2235	1476.3	139187.0	262.9	24790.3
2236	1484.4	140671.5	264.4	25054.7

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Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
2237	1492.7	142164.1	265.9	25320.5
2238	1500.9	143665.0	267.3	25587.8
2239	1509.2	145174.2	268.8	25856.6
2240	1517.6	146691.8	270.3	26126.9
2241	1525.9	148217.7	271.8	26398.7
2242	1531.0	149748.8	272.7	26671.4
2243	1536.2	151284.9	273.6	26945.0
2244	1541.3	152826.2	274.5	27219.5
2245	1546.5	154372.7	275.4	27495.0
2246	1551.7	155924.4	276.4	27771.3
2247	1556.9	157481.4	277.3	28048.6
2248	1562.2	159043.6	278.2	28326.9
2249	1567.5	160611.0	279.2	28606.1
2250	1572.8	162183.8	280.1	28886.2
2251	1578.1	163762.0	281.1	29167.3
2252	1589.7	165351.7	283.1	29450.4
2253	1601.3	166953.0	285.2	29735.6
2254	1613.0	168566.1	287.3	30022.9
2255	1624.8	170190.9	289.4	30312.3
2256	1636.6	171827.5	291.5	30603.8
2257	1648.5	173476.0	293.6	30897.4
2258	1660.4	175136.4	295.7	31193.1
2259	1672.5	176808.9	297.9	31491.0
2260	1684.5	178493.4	300.0	31791.1
2261	1696.7	180190.1	302.2	32093.2
2262	1706.2	181896.2	303.9	32397.1
2263	1715.8	183612.0	305.6	32702.7
2264	1725.6	185337.6	307.3	33010.1
2265	1735.5	187073.1	309.1	33319.2
2266	1745.6	188818.7	310.9	33630.1
2267	1755.8	190574.5	312.7	33942.8
2268	1766.2	192340.7	314.6	34257.4
2269	1776.7	194117.4	316.4	34573.8
2270	1787.3	195904.7	318.3	34892.1
2271	1798.1	197702.8	320.3	35212.4
2272	1802.3	199505.1	321.0	35533.4
2273	1806.6	201311.7	321.8	35855.2
2274	1810.9	203122.6	322.5	36177.7
2275	1815.4	204938.0	323.3	36501.0
2276	1819.9	206757.9	324.1	36825.2
2277	1824.5	208582.4	325.0	37150.1
2278	1829.2	210411.6	325.8	37475.9
2279	1834.0	212245.6	326.6	37802.6
2280	1838.9	214084.5	327.5	38130.1
2281	1843.8	215928.3	328.4	38458.5
2282	1857.6	217785.9	330.9	38789.4
2283	1871.6	219657.5	333.3	39122.7
2284	1885.6	221543.1	335.8	39458.5

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Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
2285	1899.8	223442.9	338.4	39796.9
2286	1914.0	225356.9	340.9	40137.8
2287	1928.4	227285.4	343.5	40481.3
2288	1942.9	229228.3	346.1	40827.3
2289	1957.6	231185.9	348.7	41176.0
2290	1972.3	233158.1	351.3	41527.3
2291	1987.1	235145.3	353.9	41881.2
2292	1989.6	237134.9	354.4	42235.5
2293	1992.0	239126.9	354.8	42590.3
2294	1994.5	241121.4	355.2	42945.6
2295	1997.0	243118.4	355.7	43301.3
2296	1999.6	245118.0	356.1	43657.4
2297	2002.2	247120.2	356.6	44014.0
2298	2004.8	249125.0	357.1	44371.1
2299	2007.5	251132.5	357.6	44728.6
2300	2010.2	253142.7	358.0	45086.7
2301	2013.0	255155.7	358.5	45445.2
2302	2029.4	257185.1	361.4	45806.6
2303	2046.0	259231.1	364.4	46171.1
2304	2063.0	261294.1	367.4	46538.5
2305	2080.1	263374.2	370.5	46909.0
2306	2097.5	265471.7	373.6	47282.6
2307	2115.2	267586.9	376.7	47659.3
2308	2133.1	269720.0	379.9	48039.2
2309	2151.2	271871.3	383.2	48422.4
2310	2169.6	274040.9	386.4	48808.8
2311	2188.3	276229.2	389.8	49198.6
2312	2211.4	278440.6	393.9	49592.4
2313	2234.9	280675.6	398.1	49990.5
2314	2258.8	282934.4	402.3	50392.8
2315	2283.0	285217.4	406.6	50799.4
2316	2307.5	287524.9	411.0	51210.4
2317	2332.4	289857.2	415.4	51625.8
2318	2357.6	292214.8	419.9	52045.7
2319	2383.1	294597.9	424.5	52470.2
2320	2409.0	297006.9	429.1	52899.2
2321	2435.2	299442.2	433.7	53333.0
2322	2435.0	301877.1	433.7	53766.6
2323	2435.1	304312.3	433.7	54200.4
2324	2435.8	306748.1	433.8	54634.2
2325	2436.9	309185.0	434.0	55068.2
2326	2438.5	311623.5	434.3	55502.5
2327	2440.6	314064.1	434.7	55937.2
2328	2443.1	316507.1	435.1	56372.4
2329	2446.1	318953.2	435.7	56808.0
2330	2449.5	321402.8	436.3	57244.3
2331	2453.5	323856.2	437.0	57681.3
2332	2466.8	326323.0	439.4	58120.7

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Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
2333	2480.4	328803.4	441.8	58562.4
2334	2494.1	331297.5	444.2	59006.6
2335	2508.0	333805.5	446.7	59453.3
2336	2522.1	336327.6	449.2	59902.5
2337	2536.4	338864.0	451.7	60354.3
2338	2550.8	341414.8	454.3	60808.6
2339	2565.5	343980.3	456.9	61265.5
2340	2580.3	346560.6	459.6	61725.1
2341	2595.3	349155.8	462.2	62187.3
2342	2598.8	351754.6	462.9	62650.2
2343	2602.4	354357.1	463.5	63113.7
2344	2606.1	356963.2	464.2	63577.9
2345	2609.8	359573.0	464.8	64042.7
2346	2613.6	362186.6	465.5	64508.2
2347	2617.4	364804.0	466.2	64974.4
2348	2621.3	367425.3	466.9	65441.3
2349	2625.2	370050.4	467.6	65908.8
2350	2629.1	372679.6	468.3	66377.1
2351	2633.1	375312.7	469.0	66846.1
2352	2653.6	377966.3	472.6	67318.7
2353	2674.2	380640.5	476.3	67795.0
2354	2694.9	383335.4	480.0	68275.0
2355	2715.8	386051.2	483.7	68758.7
2356	2736.7	388787.9	487.4	69246.1
2357	2757.8	391545.8	491.2	69737.3
2358	2779.1	394324.8	495.0	70232.3
2359	2800.4	397125.3	498.8	70731.1
2360	2821.9	399947.2	502.6	71233.7
2361	2843.5	402790.7	506.5	71740.1
2362	2858.7	405649.4	509.2	72249.3
2363	2874.1	408523.5	511.9	72761.2
2364	2889.6	411413.1	514.7	73275.8
2365	2905.1	414318.2	517.4	73793.3
2366	2920.8	417239.1	520.2	74313.5
2367	2936.6	420175.7	523.0	74836.5
2368	2952.5	423128.2	525.9	75362.4
2369	2968.5	426096.7	528.7	75891.1
2370	2984.6	429081.4	531.6	76422.7
2371	3000.9	432082.2	534.5	76957.2
2372	3007.6	435089.8	535.7	77492.9
2373	3014.6	438104.4	536.9	78029.8
2374	3021.9	441126.3	538.2	78568.0
2375	3029.4	444155.7	539.6	79107.6
2376	3037.2	447192.9	541.0	79648.5
2377	3045.4	450238.3	542.4	80190.9
2378	3053.8	453292.0	543.9	80734.8
2379	3062.4	456354.5	545.4	81280.2
2380	3071.4	459425.8	547.0	81827.3

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Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
2381	3080.6	462506.4	548.7	82376.0
2382	3104.0	465610.4	552.8	82928.8
2383	3127.5	468737.9	557.0	83485.8
2384	3151.2	471889.1	561.3	84047.1
2385	3175.1	475064.2	565.5	84612.6
2386	3199.2	478263.3	569.8	85182.4
2387	3223.4	481486.7	574.1	85756.5
2388	3247.8	484734.5	578.5	86335.0
2389	3272.4	488006.9	582.8	86917.8
2390	3297.2	491304.1	587.3	87505.1
2391	3322.1	494626.2	591.7	88096.7
2392	3347.0	497973.2	596.1	88692.9
2393	3372.2	501345.5	600.6	89293.5
2394	3397.7	504743.1	605.2	89898.6
2395	3423.4	508166.5	609.7	90508.4
2396	3449.4	511616.0	614.4	91122.8
2397	3475.8	515091.7	619.1	91741.8
2398	3502.3	518594.1	623.8	92365.6
2399	3529.2	522123.3	628.6	92994.2
2400	3556.4	525679.6	633.4	93627.6
2401	3583.8	529263.4	638.3	94265.9
2402	3606.6	532870.0	642.4	94908.3
2403	3629.7	536499.7	646.5	95554.7
2404	3653.0	540152.7	650.6	96205.4
2405	3676.4	543829.1	654.8	96860.2
2406	3700.2	547529.3	659.0	97519.2
2407	3724.1	551253.4	663.3	98182.5
2408	3748.2	555001.6	667.6	98850.1
2409	3772.6	558774.1	671.9	99522.0
2410	3797.1	562571.3	676.3	100198.3
2411	3821.9	566393.2	680.7	100879.0
2412	3825.7	570218.9	681.4	101560.4
2413	3829.5	574048.4	682.1	102242.5
2414	3833.6	577882.0	682.8	102925.2
2415	3837.7	581719.7	683.5	103608.8
2416	3842.0	585561.7	684.3	104293.1
2417	3846.5	589408.2	685.1	104978.1
2418	3851.0	593259.3	685.9	105664.0
2419	3855.8	597115.0	686.7	106350.8
2420	3860.6	600975.7	687.6	107038.4
2421	3865.6	604841.3	688.5	107726.9
2422	3876.5	608717.7	690.4	108417.3
2423	3887.4	612605.2	692.4	109109.7
2424	3898.5	616503.7	694.4	109804.1
2425	3909.8	620413.5	696.4	110500.4
2426	3921.1	624334.6	698.4	111198.8
2427	3932.6	628267.2	700.4	111899.2
2428	3944.2	632211.4	702.5	112601.7

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Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
2429	3955.9	636167.3	704.6	113306.3
2430	3967.8	640135.0	706.7	114013.0
2431	3979.7	644114.8	708.8	114721.8
2432	3990.1	648104.9	710.7	115432.5
2433	4000.5	652105.4	712.5	116145.0
2434	4011.1	656116.5	714.4	116859.4
2435	4021.8	660138.2	716.3	117575.7
2436	4032.5	664170.8	718.2	118293.9
2437	4043.4	668214.2	720.2	119014.1
2438	4054.4	672268.6	722.1	119736.2
2439	4065.5	676334.1	724.1	120460.3
2440	4076.7	680410.8	726.1	121186.4
2441	4088.0	684498.9	728.1	121914.5
2442	4126.4	688625.3	734.9	122649.5
2443	4165.0	692790.3	741.8	123391.3
2444	4203.9	696994.3	748.8	124140.1
2445	4243.1	701237.3	755.7	124895.8
2446	4282.5	705519.8	762.7	125658.5
2447	4322.2	709842.0	769.8	126428.3
2448	4362.1	714204.1	776.9	127205.3
2449	4402.3	718606.4	784.1	127989.3
2450	4442.7	723049.1	791.3	128780.6
2451	4483.4	727532.4	798.5	129579.1
2452	4521.2	732053.6	805.3	130384.4
2453	4559.4	736613.0	812.1	131196.5
2454	4598.1	741211.1	819.0	132015.4
2455	4637.2	745848.3	825.9	132841.3
2456	4676.7	750525.0	833.0	133674.3
2457	4716.6	755241.6	840.1	134514.4
2458	4757.0	759998.6	847.3	135361.6
2459	4797.8	764796.4	854.5	136216.1
2460	4839.1	769635.5	861.9	137078.0
2461	4880.7	774516.2	869.3	137947.3
2462	4969.6	779485.8	885.1	138832.4
2463	5060.3	784546.1	901.3	139733.7
2464	5152.9	789699.0	917.8	140651.5
2465	5247.4	794946.4	934.6	141586.1
2466	5343.8	800290.2	951.8	142537.9
2467	5442.2	805732.4	969.3	143507.2
2468	5542.4	811274.8	987.1	144494.3
2469	5644.6	816919.4	1005.3	145499.6
2470	5748.6	822668.0	1023.9	146523.5
2471	5854.6	828522.5	1042.7	147566.3
2472	6038.2	834560.7	1075.4	148641.7
2473	6226.4	840787.1	1109.0	149750.7
2474	6419.2	847206.3	1143.3	150894.0
2475	6616.6	853822.9	1178.5	152072.4
2476	6818.5	860641.4	1214.4	153286.9

AMERIGAS
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Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
2477	7025.0	867666.4	1251.2	154538.1
2478	7236.1	874902.6	1288.8	155826.9
2479	7451.8	882354.4	1327.2	157154.1
2480	7672.1	890026.5	1366.5	158520.6
2481	7896.9	897923.4	1406.5	159927.1
2482	7986.6	905910.0	1422.5	161349.6
2483	8077.8	913987.8	1438.7	162788.3
2484	8170.6	922158.4	1455.3	164243.5
2485	8265.1	930423.5	1472.1	165715.6
2486	8361.1	938784.6	1489.2	167204.8
2487	8458.8	947243.4	1506.6	168711.3
2488	8558.0	955801.4	1524.2	170235.6
2489	8658.8	964460.2	1542.2	171777.8
2490	8761.3	973221.5	1560.5	173338.2
2491	8865.3	982086.8	1579.0	174917.2
2492	8913.2	991000.0	1587.5	176504.7
2493	8961.7	999961.7	1596.2	178100.9
2494	9010.8	1008972.6	1604.9	179705.8
2495	9060.5	1018033.1	1613.7	181319.5
2496	9110.8	1027143.8	1622.7	182942.2
2497	9161.6	1036305.5	1631.8	184574.0
2498	9213.1	1045518.6	1640.9	186214.9
2499	9265.1	1054783.7	1650.2	187865.1
2500	9317.8	1064101.5	1659.6	189524.7
2501	9371.0	1073472.5	1669.0	191193.7
2502	9418.5	1082891.0	1677.5	192871.2
2503	9466.4	1092357.4	1686.0	194557.3
2504	9514.6	1101871.9	1694.6	196251.9
2505	9563.1	1111435.0	1703.3	197955.1
2506	9612.0	1121047.0	1712.0	199667.1
2507	9661.1	1130708.1	1720.7	201387.8
2508	9710.7	1140418.8	1729.5	203117.4
2509	9760.5	1150179.3	1738.4	204855.8
2510	9810.7	1159990.1	1747.4	206603.2
2511	9861.3	1169851.4	1756.4	208359.5
2512	9912.7	1179764.1	1765.5	210125.1
2513	9964.5	1189728.5	1774.7	211899.8
2514	10016.5	1199745.0	1784.0	213683.8
2515	10068.8	1209813.9	1793.3	215477.2
2516	10121.5	1219935.4	1802.7	217279.9
2517	10174.4	1230109.8	1812.1	219092.0
2518	10227.7	1240337.5	1821.6	220913.7
2519	10281.3	1250618.8	1831.2	222744.9
2520	10335.1	1260953.9	1840.8	224585.6
2521	10389.3	1271343.2	1850.4	226436.0
2522	10418.6	1281761.7	1855.6	228291.6
2523	10448.0	1292209.8	1860.9	230152.5
2524	10477.7	1302687.5	1866.2	232018.7

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Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
2525	10507.5	1313195.0	1871.5	233890.2
2526	10537.6	1323732.6	1876.8	235767.0
2527	10567.8	1334300.4	1882.2	237649.2
2528	10598.2	1344898.5	1887.6	239536.8
2529	10628.8	1355527.3	1893.1	241429.9
2530	10659.5	1366186.8	1898.5	243328.4
2531	10690.5	1376877.2	1904.1	245232.5
2532	10766.3	1387643.6	1917.6	247150.0
2533	10842.7	1398486.3	1931.2	249081.2
2534	10919.6	1409405.9	1944.9	251026.1
2535	10997.0	1420402.8	1958.6	252984.7
2536	11074.8	1431477.6	1972.5	254957.2
2537	11153.2	1442630.8	1986.5	256943.7
2538	11232.1	1453862.9	2000.5	258944.2
2539	11311.4	1465174.4	2014.7	260958.9
2540	11391.3	1476565.7	2028.9	262987.7
2541	11471.7	1488037.3	2043.2	265030.9
2542	11498.7	1499536.1	2048.0	267078.9
2543	11526.1	1511062.2	2052.9	269131.8
2544	11553.7	1522615.9	2057.8	271189.6
2545	11581.6	1534197.5	2062.8	273252.4
2546	11609.7	1545807.2	2067.8	275320.2
2547	11638.2	1557445.4	2072.8	277393.0
2548	11666.9	1569112.3	2078.0	279471.0
2549	11695.8	1580808.1	2083.1	281554.1
2550	11725.1	1592533.1	2088.3	283642.4
2551	11754.6	1604287.7	2093.6	285736.0
2552	11833.1	1616120.7	2107.6	287843.6
2553	11912.9	1628033.6	2121.8	289965.3
2554	11994.0	1640027.6	2136.2	292101.6
2555	12076.5	1652104.1	2150.9	294252.5
2556	12160.3	1664264.4	2165.8	296418.3
2557	12245.4	1676509.7	2181.0	298599.3
2558	12331.8	1688841.5	2196.4	300795.7
2559	12419.5	1701261.0	2212.0	303007.7
2560	12508.6	1713769.6	2227.9	305235.6
2561	12598.9	1726368.5	2244.0	307479.5
2562	12703.1	1739071.6	2262.5	309742.1
2563	12808.1	1751879.7	2281.2	312023.3
2564	12913.8	1764793.6	2300.1	314323.3
2565	13020.3	1777813.9	2319.0	316642.4
2566	13127.6	1790941.5	2338.1	318980.5
2567	13235.6	1804177.1	2357.4	321337.9
2568	13344.4	1817521.6	2376.7	323714.6
2569	13454.0	1830975.5	2396.3	326110.9
2570	13564.3	1844539.8	2415.9	328526.8
2571	13675.4	1858215.2	2435.7	330962.5
2572	13832.2	1872047.4	2463.6	333426.1

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Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
2573	13990.3	1886037.7	2491.8	335917.9
2574	14149.8	1900187.5	2520.2	338438.0
2575	14310.6	1914498.0	2548.8	340986.9
2576	14472.7	1928970.7	2577.7	343564.6
2577	14636.1	1943606.8	2606.8	346171.4
2578	14800.8	1958407.6	2636.1	348807.5
2579	14966.9	1973374.5	2665.7	351473.2
2580	15134.3	1988508.8	2695.5	354168.7
2581	15303.0	2003811.7	2725.6	356894.3
2582	15384.3	2019196.0	2740.1	359634.4
2583	15466.1	2034662.1	2754.6	362389.0
2584	15548.4	2050210.5	2769.3	365158.3
2585	15631.3	2065841.8	2784.1	367942.4
2586	15714.7	2081556.5	2798.9	370741.3
2587	15798.7	2097355.2	2813.9	373555.1
2588	15883.2	2113238.4	2828.9	376384.1
2589	15968.2	2129206.6	2844.1	379228.1
2590	16053.8	2145260.4	2859.3	382087.4
2591	16139.9	2161400.3	2874.6	384962.1
2592	16207.8	2177608.0	2886.7	387848.8
2593	16276.1	2193884.2	2898.9	390747.7
2594	16345.0	2210229.2	2911.2	393658.9
2595	16414.4	2226643.6	2923.5	396582.4
2596	16484.3	2243127.9	2936.0	399518.4
2597	16554.7	2259682.6	2948.5	402466.9
2598	16625.6	2276308.2	2961.1	405428.1
2599	16697.0	2293005.3	2973.9	408401.9
2600	16768.9	2309774.2	2986.7	411388.6
2601	16841.3	2326615.5	2999.6	414388.2
2602	16926.2	2343541.7	3014.7	417402.9
2603	17011.6	2360553.3	3029.9	420432.8
2604	17097.5	2377650.8	3045.2	423478.0
2605	17183.9	2394834.7	3060.6	426538.5
2606	17270.8	2412105.5	3076.1	429614.6
2607	17358.2	2429463.8	3091.6	432706.2
2608	17446.1	2446909.9	3107.3	435813.5
2609	17534.6	2464444.5	3123.0	438936.6
2610	17623.5	2482068.0	3138.9	442075.5
2611	17713.0	2499781.0	3154.8	445230.3
2612	17787.0	2517568.0	3168.0	448398.3
2613	17861.6	2535429.6	3181.3	451579.6
2614	17936.7	2553366.3	3194.7	454774.2
2615	18012.3	2571378.6	3208.1	457982.4
2616	18088.4	2589467.1	3221.7	461204.1
2617	18165.1	2607632.2	3235.3	464439.4
2618	18242.2	2625874.4	3249.1	467688.5
2619	18319.9	2644194.3	3262.9	470951.4
2620	18398.1	2662592.4	3276.8	474228.2

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Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
2621	18476.8	2681069.2	3290.9	477519.1
2622	18923.1	2699992.3	3370.3	480889.4
2623	19378.7	2719370.9	3451.5	484340.9
2624	19843.6	2739214.5	3534.3	487875.2
2625	20317.8	2759532.4	3618.8	491494.0
2626	20801.5	2780333.8	3704.9	495198.9
2627	21294.4	2801628.2	3792.7	498991.6
2628	21796.7	2823424.8	3882.2	502873.7
2629	22308.3	2845733.1	3973.3	506847.0
2630	22829.2	2868562.3	4066.1	510913.1
2631	23359.5	2891921.8	4160.5	515073.6
2632	24293.1	2916214.8	4326.8	519400.3
2633	25252.9	2941467.7	4497.7	523898.1
2634	26238.9	2967706.5	4673.3	528571.4
2635	27251.1	2994957.7	4853.6	533425.1
2636	28289.6	3023247.2	5038.6	538463.7
2637	29354.3	3052601.5	5228.2	543691.9
2638	30445.2	3083046.7	5422.5	549114.4
2639	31562.3	3114608.9	5621.5	554735.9
2640	32705.6	3147314.5	5825.1	560561.0
2641	33875.2	3181189.7	6033.4	566594.4
2642	34182.9	3215372.6	6088.2	572682.7
2643	34497.3	3249869.9	6144.2	578826.9
2644	34818.2	3284688.1	6201.4	585028.3
2645	35145.7	3319833.8	6259.7	591288.0
2646	35479.8	3355313.5	6319.2	597607.2
2647	35820.4	3391134.0	6379.9	603987.1
2648	36167.7	3427301.6	6441.7	610428.9
2649	36521.5	3463823.1	6504.8	616933.6
2650	36881.8	3500704.9	6568.9	623502.5
2651	37248.8	3537953.8	6634.3	630136.8
2652	37258.0	3575211.8	6635.9	636772.8
2653	37267.6	3612479.4	6637.7	643410.4
2654	37277.6	3649757.0	6639.4	650049.9
2655	37287.9	3687045.0	6641.3	656691.1
2656	37298.7	3724343.7	6643.2	663334.3
2657	37309.7	3761653.4	6645.2	669979.5
2658	37321.2	3798974.6	6647.2	676626.7
2659	37333.0	3836307.6	6649.3	683276.0
2660	37345.2	3873652.8	6651.5	689927.4
2661	37357.8	3911010.6	6653.7	696581.1
2662	37234.8	3948245.4	6631.8	703212.9
2663	37112.5	3985357.8	6610.0	709823.0
2664	36990.9	4022348.7	6588.4	716411.3
2665	36870.0	4059218.7	6566.8	722978.2
2666	36749.8	4095968.5	6545.4	729523.6
2667	36630.3	4132598.8	6524.1	736047.7
2668	36511.5	4169110.2	6503.0	742550.7

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Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
2669	36393.3	4205503.6	6481.9	749032.6
2670	36275.9	4241779.5	6461.0	755493.6
2671	36159.2	4277938.7	6440.2	761933.9
2672	36056.1	4313994.8	6421.9	768355.7
2673	35953.6	4349948.4	6403.6	774759.4
2674	35851.4	4385799.8	6385.4	781144.8
2675	35749.8	4421549.6	6367.3	787512.1
2676	35648.7	4457198.3	6349.3	793861.4
2677	35548.0	4492746.3	6331.4	800192.8
2678	35447.8	4528194.0	6313.5	806506.3
2679	35348.0	4563542.0	6295.8	812802.0
2680	35248.8	4598790.8	6278.1	819080.1
2681	35150.0	4633940.8	6260.5	825340.6
2682	34961.1	4668901.9	6226.8	831567.4
2683	34773.1	4703674.9	6193.3	837760.8
2684	34586.0	4738260.9	6160.0	843920.8
2685	34399.9	4772660.8	6126.9	850047.7
2686	34214.7	4806875.5	6093.9	856141.6
2687	34030.5	4840906.0	6061.1	862202.7
2688	33847.2	4874753.2	6028.4	868231.1
2689	33664.8	4908418.1	5996.0	874227.1
2690	33483.4	4941901.5	5963.7	880190.8
2691	33303.0	4975204.5	5931.5	886122.3
2692	32937.9	5008142.4	5866.5	891988.8
2693	32575.7	5040718.1	5802.0	897790.8
2694	32216.2	5072934.2	5737.9	903528.7
2695	31859.4	5104793.6	5674.4	909203.1
2696	31505.4	5136299.1	5611.4	914814.5
2697	31154.2	5167453.3	5548.8	920363.3
2698	30805.7	5198259.0	5486.7	925850.0
2699	30460.0	5228719.1	5425.2	931275.2
2700	30117.1	5258836.2	5364.1	936639.3
2701	29776.9	5288613.1	5303.5	941942.8
2702	29284.0	5317897.0	5215.7	947158.5
2703	28796.0	5346693.1	5128.8	952287.3
2704	28313.2	5375006.3	5042.8	957330.1
2705	27835.5	5402841.8	4957.7	962287.8
2706	27362.8	5430204.6	4873.5	967161.3
2707	26895.2	5457099.8	4790.2	971951.6
2708	26432.7	5483532.5	4707.9	976659.4
2709	25975.2	5509507.7	4626.4	981285.8
2710	25522.9	5535030.6	4545.8	985831.6
2711	25075.6	5560106.2	4466.2	990297.8
2712	24390.2	5584496.4	4344.1	994641.9
2713	23715.1	5608211.5	4223.8	998865.7
2714	23050.2	5631261.6	4105.4	1002971.1
2715	22395.5	5653657.1	3988.8	1006959.9
2716	21751.1	5675408.3	3874.0	1010834.0

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Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
2717	21117.0	5696525.3	3761.1	1014595.1
2718	20493.1	5717018.4	3650.0	1018245.1
2719	19879.5	5736897.9	3540.7	1021785.8
2720	19276.1	5756174.0	3433.2	1025219.0
2721	18683.0	5774857.0	3327.6	1028546.6
2722	18063.2	5792920.2	3217.2	1031763.8
2723	17454.9	5810375.1	3108.8	1034872.6
2724	16858.0	5827233.1	3002.5	1037875.2
2725	16272.7	5843505.7	2898.3	1040773.4
2726	15698.8	5859204.5	2796.1	1043569.5
2727	15136.4	5874340.9	2695.9	1046265.4
2728	14585.5	5888926.4	2597.8	1048863.2
2729	14046.1	5902972.4	2501.7	1051364.9
2730	13518.1	5916490.6	2407.7	1053772.6
2731	13001.7	5929492.2	2315.7	1056088.3
2732	12561.7	5942053.9	2237.3	1058325.6
2733	12129.9	5954183.8	2160.4	1060486.1
2734	11706.3	5965890.1	2085.0	1062571.0
2735	11290.8	5977180.9	2011.0	1064582.0
2736	10883.6	5988064.5	1938.5	1066520.5
2737	10484.5	5998549.1	1867.4	1068387.8
2738	10093.7	6008642.7	1797.8	1070185.6
2739	9711.0	6018353.7	1729.6	1071915.2
2740	9336.5	6027690.1	1662.9	1073578.1
2741	8970.1	6036660.3	1597.6	1075175.7
2742	8468.2	6045128.5	1508.3	1076684.0
2743	7982.0	6053110.5	1421.7	1078105.7
2744	7511.5	6060622.0	1337.9	1079443.5
2745	7056.8	6067678.8	1256.9	1080700.4
2746	6617.8	6074296.6	1178.7	1081879.1
2747	6194.5	6080491.1	1103.3	1082982.4
2748	5786.9	6086278.0	1030.7	1084013.1
2749	5395.1	6091673.1	960.9	1084974.0
2750	5018.9	6096692.0	893.9	1085867.9
2751	4658.5	6101350.6	829.7	1086697.6
2752	4541.1	6105891.7	808.8	1087506.4
2753	4425.7	6110317.4	788.3	1088294.7
2754	4312.2	6114629.7	768.0	1089062.7
2755	4200.7	6118830.4	748.2	1089810.9
2756	4091.1	6122921.5	728.7	1090539.5
2757	3983.5	6126905.0	709.5	1091249.0
2758	3877.9	6130782.9	690.7	1091939.7
2759	3774.2	6134557.1	672.2	1092611.9
2760	3672.4	6138229.5	654.1	1093266.0
2761	3572.6	6141802.1	636.3	1093902.3
2762	3519.5	6145321.6	626.9	1094529.2
2763	3467.0	6148788.6	617.5	1095146.7
2764	3415.1	6152203.7	608.3	1095754.9

AMERIGAS
GLENDALE, AZ

STORAGE WELL NO. 2
Thu, Mar 4, 1999

Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
2765	3363.8	6155567.5	599.1	1096354.0
2766	3313.0	6158880.5	590.1	1096944.1
2767	3262.9	6162143.3	581.1	1097525.3
2768	3213.3	6165356.6	572.3	1098097.6
2769	3164.3	6168521.0	563.6	1098661.2
2770	3116.0	6171636.9	555.0	1099216.1
2771	3068.2	6174705.1	546.5	1099762.6
2772	3041.5	6177746.6	541.7	1100304.3
2773	3015.1	6180761.7	537.0	1100841.3
2774	2989.1	6183750.8	532.4	1101373.7
2775	2963.5	6186714.3	527.8	1101901.5
2776	2938.2	6189652.5	523.3	1102424.9
2777	2913.3	6192565.8	518.9	1102943.7
2778	2888.7	6195454.5	514.5	1103458.2
2779	2864.5	6198318.9	510.2	1103968.4
2780	2840.6	6201159.5	505.9	1104474.3
2781	2817.0	6203976.5	501.7	1104976.1
2782	2794.3	6206770.9	497.7	1105473.8
2783	2771.9	6209542.8	493.7	1105967.5
2784	2749.8	6212292.6	489.8	1106457.2
2785	2728.0	6215020.6	485.9	1106943.1
2786	2706.4	6217727.0	482.0	1107425.1
2787	2685.1	6220412.1	478.2	1107903.4
2788	2664.1	6223076.1	474.5	1108377.9
2789	2643.3	6225719.5	470.8	1108848.7
2790	2622.9	6228342.3	467.2	1109315.8
2791	2602.7	6230945.0	463.6	1109779.4
2792	2581.6	6233526.6	459.8	1110239.2
2793	2560.9	6236087.5	456.1	1110695.3
2794	2540.5	6238628.0	452.5	1111147.8
2795	2520.5	6241148.5	448.9	1111596.7
2796	2500.9	6243649.3	445.4	1112042.1
2797	2481.6	6246130.9	442.0	1112484.1
2798	2462.7	6248593.6	438.6	1112922.7
2799	2444.2	6251037.8	435.3	1113358.0
2800	2426.0	6253463.8	432.1	1113790.1
2801	2408.2	6255872.1	428.9	1114219.1
2802	2389.2	6258261.3	425.5	1114644.6
2803	2370.6	6260631.9	422.2	1115066.8
2804	2352.2	6262984.0	418.9	1115485.8
2805	2334.1	6265318.1	415.7	1115901.5
2806	2316.3	6267634.4	412.5	1116314.0
2807	2298.8	6269933.2	409.4	1116723.5
2808	2281.6	6272214.7	406.4	1117129.8
2809	2264.7	6274479.4	403.4	1117533.2
2810	2248.0	6276727.4	400.4	1117933.6
2811	2231.7	6278959.2	397.5	1118331.1
2812	2213.1	6281172.3	394.2	1118725.2

AMERIGAS
GLENDALE, AZ

STORAGE WELL NO. 2
Thu, Mar 4, 1999

Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
2813	2194.8	6283367.0	390.9	1119116.1
2814	2176.8	6285543.8	387.7	1119503.8
2815	2159.0	6287702.8	384.5	1119888.4
2816	2141.6	6289844.5	381.4	1120269.8
2817	2124.5	6291969.0	378.4	1120648.2
2818	2107.7	6294076.7	375.4	1121023.6
2819	2091.3	6296168.0	372.5	1121396.1
2820	2075.1	6298243.1	369.6	1121765.7
2821	2059.2	6300302.3	366.8	1122132.4
2822	2050.0	6302352.3	365.1	1122497.6
2823	2040.9	6304393.2	363.5	1122861.1
2824	2032.1	6306425.3	361.9	1123223.0
2825	2023.3	6308448.6	360.4	1123583.4
2826	2014.8	6310463.4	358.8	1123942.2
2827	2006.4	6312469.8	357.4	1124299.6
2828	1998.1	6314467.9	355.9	1124655.4
2829	1990.1	6316458.0	354.4	1125009.9
2830	1982.2	6318440.1	353.0	1125362.9
2831	1974.4	6320414.5	351.7	1125714.6
2832	1963.7	6322378.3	349.8	1126064.3
2833	1953.2	6324331.5	347.9	1126412.2
2834	1942.8	6326274.3	346.0	1126758.2
2835	1932.6	6328206.9	344.2	1127102.5
2836	1922.5	6330129.5	342.4	1127444.9
2837	1912.6	6332042.1	340.6	1127785.5
2838	1902.8	6333944.9	338.9	1128124.4
2839	1893.2	6335838.1	337.2	1128461.6
2840	1883.7	6337721.8	335.5	1128797.1
2841	1874.4	6339596.2	333.8	1129131.0
2842	1873.1	6341469.4	333.6	1129464.6
2843	1872.0	6343341.3	333.4	1129798.0
2844	1870.9	6345212.3	333.2	1130131.2
2845	1870.0	6347082.3	333.1	1130464.3
2846	1869.2	6348951.5	332.9	1130797.2
2847	1868.5	6350820.0	332.8	1131130.0
2848	1867.9	6352688.0	332.7	1131462.7
2849	1867.5	6354555.4	332.6	1131795.3
2850	1867.1	6356422.6	332.5	1132127.9
2851	1866.9	6358289.4	332.5	1132460.4
2852	1869.9	6360159.3	333.0	1132793.4
2853	1873.2	6362032.5	333.6	1133127.1
2854	1876.7	6363909.2	334.3	1133461.3
2855	1880.5	6365789.8	334.9	1133796.3
2856	1884.6	6367674.4	335.7	1134131.9
2857	1889.0	6369563.3	336.4	1134468.4
2858	1893.6	6371456.9	337.3	1134805.6
2859	1898.4	6373355.3	338.1	1135143.7
2860	1903.6	6375258.9	339.0	1135482.8

AMERIGAS
GLENDALE, AZ

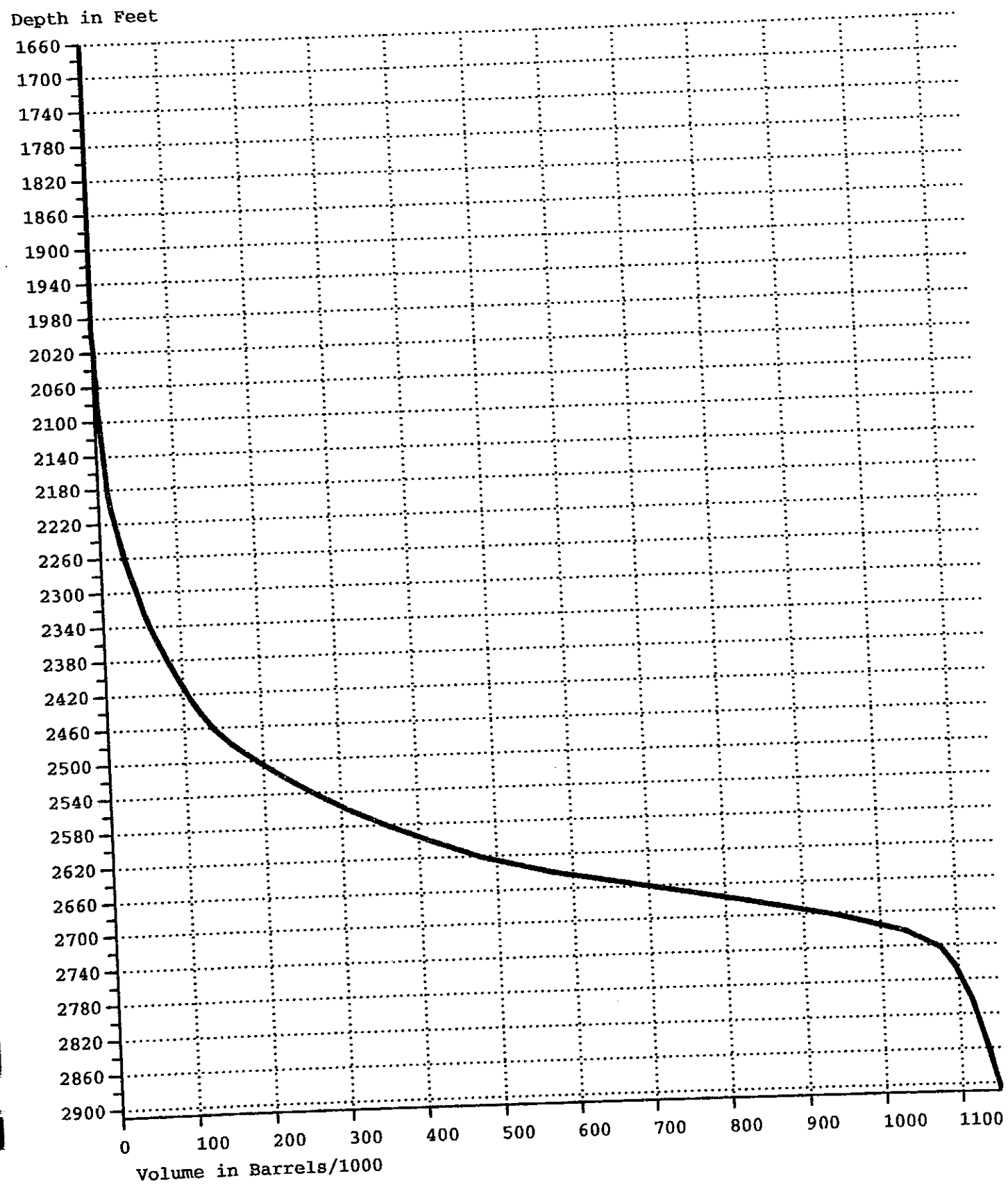
STORAGE WELL NO. 2
Thu, Mar 4, 1999

Depth	Cubic ft. per ft.	Cubic ft. total	Barrels per ft.	Barrels total
2861	1909.0	6377167.9	340.0	1135822.8
2862	1896.0	6379063.8	337.7	1136160.5
2863	1883.7	6380947.6	335.5	1136496.0
2864	1872.2	6382819.8	333.5	1136829.4
2865	1861.4	6384681.2	331.5	1137161.0
2866	1851.4	6386532.6	329.7	1137490.7
2867	1842.1	6388374.7	328.1	1137818.8
2868	1833.5	6390208.2	326.6	1138145.4
2869	1825.7	6392033.9	325.2	1138470.5
2870	1818.7	6393852.6	323.9	1138794.5
2871	1812.3	6395664.9	322.8	1139117.2
2872	1802.3	6397467.2	321.0	1139438.3
2873	1792.8	6399260.0	319.3	1139757.6
2874	1783.7	6401043.7	317.7	1140075.3
2875	1775.1	6402818.8	316.2	1140391.4
2876	1767.0	6404585.8	314.7	1140706.1
2877	1759.4	6406345.2	313.4	1141019.5
2878	1752.2	6408097.4	312.1	1141331.6
2879	1745.5	6409842.9	310.9	1141642.4
2880	1739.3	6411582.1	309.8	1141952.2
2881	1733.5	6413315.6	308.7	1142261.0
2882	1725.5	6415041.1	307.3	1142568.3
2883	1718.4	6416759.5	306.1	1142874.4
2884	1712.2	6418471.7	305.0	1143179.3
2885	1707.0	6420178.8	304.0	1143483.4
2886	1702.7	6421881.5	303.3	1143786.6
2887	1711.0	6423592.5	304.7	1144091.4
2888	1720.5	6425313.0	306.4	1144397.8
2889	1731.3	6427044.3	308.4	1144706.2
2890	1743.2	6428787.5	310.5	1145016.6
2891	1785.1	6430572.6	317.9	1145334.6
2892	1918.2	6432490.8	341.6	1145676.2
2893	1853.3	6434344.1	330.1	1146006.3
2894	1879.9	6436224.0	334.8	1146341.1
2895	1942.0	6438166.1	345.9	1146687.0
2896	1917.4	6440083.5	341.5	1147028.5
2897	1833.2	6441916.7	326.5	1147355.0
2898	1818.5	6443735.2	323.9	1147678.9
2899	1812.8	6445548.0	322.9	1148001.8
2900	1780.7	6447328.6	317.1	1148319.0
2901	1716.0	6449044.6	305.6	1148624.6
2902	1507.4	6450552.0	268.5	1148893.1
2903	1383.5	6451935.5	246.4	1149139.5
2904	1051.5	6452987.0	187.3	1149326.8
2905	754.9	6453741.9	134.5	1149461.2
2906	341.3	6454083.2	60.8	1149522.0
2907	78.8	6454162.0	14.0	1149536.0

AMERIGAS
GLENDALE, AZ

SONARWIRE, INC
Depth vs Volume

STORAGE WELL NO. 2
Thu, Mar 4, 1999



SONARWIRE INC.
Max Radius & Depth vs Bearing

AMERIGAS
GLENDALE, AZ

STORAGE WELL NO. 2
Thu, Mar 4, 1999

This table lists the maximum radius (in feet) found at each of the 128 bearings at which soundings were taken. Also listed after each radius, (separated by ':'), is the depth (in feet) at which that maximum radius was found. Bearings are shown, (in degrees), for each row of four 'radius : depth' pairs.

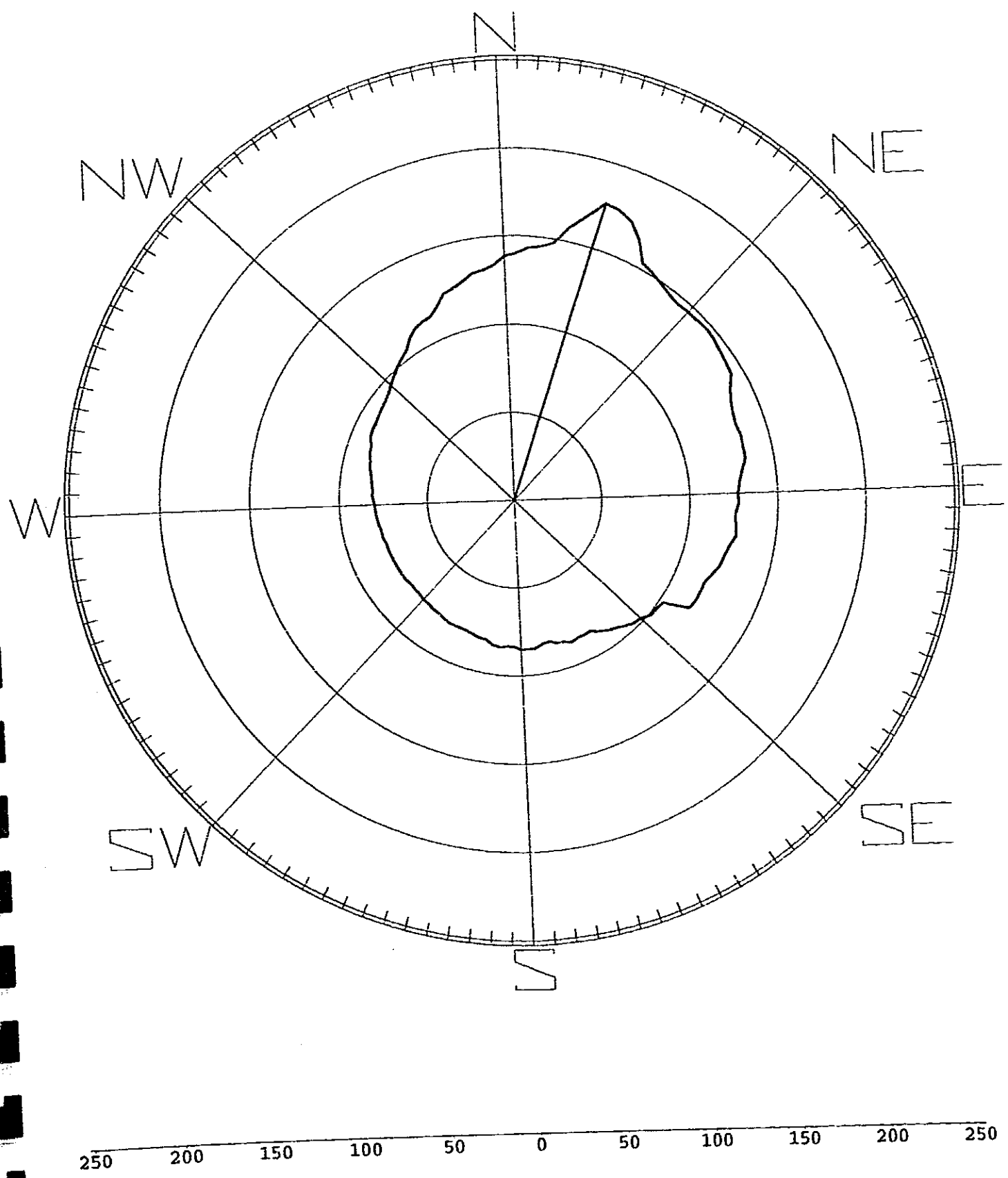
Bearing	+0.0	+2.8	+5.6	+8.4
0.0	138.4: 2650	140.1: 2650	143.4: 2650	144.7: 2680
11.3	147.6: 2680	157.8: 2650	166.2: 2650	176.3: 2650
22.5	175.5: 2650	172.1: 2650	164.5: 2650	153.6: 2660
33.8	151.3: 2660	149.1: 2660	146.9: 2660	145.4: 2660
45.0	146.0: 2650	146.2: 2660	146.9: 2660	146.2: 2660
56.3	144.7: 2660	144.0: 2660	143.2: 2660	138.8: 2660
67.5	135.8: 2660	134.2: 2640	133.3: 2650	134.2: 2650
78.8	133.6: 2660	133.6: 2660	130.7: 2660	128.5: 2660
90.0	127.4: 2650	127.4: 2650	125.7: 2640	126.6: 2640
101.3	127.4: 2640	124.9: 2640	123.2: 2640	122.3: 2640
112.5	119.8: 2640	117.3: 2640	117.3: 2640	117.3: 2640
123.8	116.4: 2640	102.6: 2660	101.1: 2660	101.1: 2680
135.0	98.2: 2660	97.0: 2640	95.3: 2640	92.8: 2640
146.3	91.1: 2640	88.6: 2640	86.1: 2640	86.1: 2640
157.5	86.1: 2640	86.9: 2640	85.2: 2640	84.4: 2640
168.8	82.7: 2640	83.5: 2650	85.2: 2650	85.2: 2650
180.0	85.2: 2650	83.5: 2650	83.5: 2640	84.4: 2640
191.3	83.5: 2640	81.2: 2660	81.2: 2660	80.5: 2660
202.5	79.7: 2660	79.7: 2660	79.7: 2660	79.7: 2660
213.8	79.0: 2660	78.3: 2660	78.3: 2660	77.5: 2660
225.0	77.5: 2660	76.8: 2650	76.8: 2650	76.8: 2650
236.3	77.5: 2660	77.5: 2660	77.5: 2660	77.5: 2660
247.5	77.6: 2650	77.6: 2650	77.6: 2650	78.5: 2650
258.8	78.3: 2690	79.0: 2690	79.3: 2650	79.7: 2670
270.0	80.2: 2650	81.2: 2670	81.2: 2670	81.9: 2670
281.3	82.7: 2690	84.2: 2670	84.9: 2670	86.4: 2670
292.5	87.1: 2670	89.3: 2670	90.1: 2670	90.1: 2670
303.8	90.8: 2670	91.5: 2670	92.3: 2690	93.8: 2690
315.0	96.0: 2690	98.2: 2690	100.4: 2690	102.6: 2690
326.3	104.8: 2690	109.3: 2680	112.2: 2680	113.7: 2680
337.5	114.4: 2690	118.1: 2680	123.3: 2680	124.8: 2680
348.8	127.0: 2680	130.7: 2670	131.4: 2660	133.6: 2660

Between 1662 and 2907 foot depths, maximum radius was 176.3 feet at bearing 19.7 at 2650.0 foot depth

AMERIGAS
STORAGE WELL NO. 2 W-2
GLENDALE, AZ

SONARWIRE, INC
Max Range vs Bearing

Max Radius=176.3 ft @ 19.7 deg
Depth= 2690 ft. Thu, Mar 4, 1999



SONARWIRE INC.
Wall Ranges versus Depth (ft.)

AMERIGAS
GLENDALE, AZ

STORAGE WELL NO. 2
Thu, Mar 4, 1999

Depth	Tilt	N	NE	E	SE	S	SW	W	NW
1662	0	1.5	1.8	1.7	1.7	1.6	1.6	1.5	1.5
1750	0	1.6	1.8	1.6	0.9	0.7	0.7	0.7	1.1
1800	0	1.8	1.9	1.6	0.9	0.9	0.9	1.1	1.2
1850	0	2.6	2.7	1.8	1.2	1.2	1.1	1.1	1.9
1870	0	2.8	3.2	2.7	1.7	1.4	1.4	1.6	2.2
1900	0	4.0	4.5	3.0	1.4	1.4	1.4	1.4	2.3
1920	0	5.1	5.5	4.4	2.2	1.7	1.6	1.9	2.8
1940	0	5.5	6.4	4.3	2.2	1.9	1.7	2.0	3.3
1960	0	7.3	8.2	6.3	2.6	2.2	1.7	2.4	3.8
1980	0	8.1	9.3	6.5	3.2	2.6	2.5	3.1	4.6
2000	0	10.0	10.5	9.1	4.2	2.6	1.9	2.8	5.1
2010	0	9.6	10.6	8.0	4.2	2.2	1.9	3.5	6.1
2020	0	10.1	12.4	8.5	4.3	2.8	2.2	3.1	5.5
2030	0	11.2	13.1	10.1	6.0	3.3	3.2	3.5	5.3
2040	0	11.8	13.5	12.3	6.2	3.6	3.2	3.9	7.1
2050	0	11.2	14.0	12.1	7.3	4.2	3.6	4.3	7.1
2060	0	11.3	14.5	11.7	8.3	5.2	3.8	4.3	7.7
2070	0	11.8	14.8	13.0	6.9	5.3	4.3	4.7	8.3
2080	0	12.5	15.9	14.3	9.0	5.6	4.7	5.5	8.6
2090	0	13.6	16.7	14.6	8.3	5.6	5.0	5.9	8.7
2100	0	14.6	17.6	16.1	9.7	5.8	4.7	5.5	9.3
2110	0	15.3	18.6	15.9	9.7	5.8	4.9	6.3	10.2
2120	0	14.6	18.7	16.5	9.9	6.2	5.0	6.3	9.3
2130	0	15.8	18.9	17.0	10.9	7.2	5.3	5.8	9.6
2140	0	16.4	19.9	17.1	9.6	6.8	5.6	6.2	10.5
2150	0	16.5	20.4	17.3	10.3	6.8	5.6	6.3	10.5
2160	0	17.1	21.8	18.0	11.5	6.8	5.5	6.3	10.8
2170	0	17.1	21.3	17.9	12.0	8.0	6.3	6.5	11.4
2180	0	17.1	21.3	19.4	11.8	6.5	6.1	7.4	9.7
2190	0	23.2	27.6	24.9	16.7	12.2	10.8	11.2	15.4
2200	0	25.5	28.3	25.7	18.1	12.7	10.5	11.6	16.7
2210	0	25.9	29.3	24.5	16.9	12.4	11.0	13.3	19.0
2220	0	26.8	30.6	26.4	17.9	13.7	11.4	13.1	18.6
2230	0	28.1	30.8	26.2	17.3	13.9	12.7	14.1	20.3
2240	0	28.3	31.6	27.4	18.6	13.5	12.4	14.1	21.1
2250	0	29.1	32.6	27.4	18.7	14.3	13.1	15.2	20.8
2260	0	30.4	35.2	27.8	18.8	13.9	13.5	15.0	21.9
2270	0	30.6	34.0	30.6	21.1	15.4	13.7	14.8	20.5
2280	0	30.7	35.1	30.7	20.9	14.9	14.6	16.5	21.8
2290	0	31.3	36.4	32.9	20.9	15.8	15.5	16.5	23.1
2300	0	31.6	36.7	32.6	20.9	16.8	14.9	15.8	23.4
2310	0	32.0	37.7	33.9	27.8	16.5	15.2	16.8	21.5
2320	0	31.6	38.3	38.6	31.0	20.2	18.3	18.0	24.0
2330	0	34.5	41.1	38.0	24.7	17.7	16.1	18.0	25.0
2340	0	36.1	42.7	36.7	25.6	18.7	16.4	17.1	24.7
2350	0	36.7	42.1	37.3	26.9	19.3	16.8	17.7	23.7
2360	0	35.7	45.2	38.6	27.5	20.6	17.4	18.7	25.6

AMERIGAS
GLENDALE, AZ

STORAGE WELL NO. 2
Thu, Mar 4, 1999

Depth	Tilt	N	NE	E	SE	S	SW	W	NW
2370	0	35.7	44.3	39.5	30.4	21.2	17.7	19.0	25.3
2380	0	35.1	43.3	42.1	32.3	23.4	19.6	19.3	24.0
2390	0	37.7	44.6	43.0	35.1	23.1	19.9	20.6	25.6
2400	0	37.0	46.5	44.6	34.2	24.7	20.9	21.2	25.3
2410	0	40.5	49.0	48.7	36.4	26.3	21.5	21.2	25.9
2420	0	40.8	49.4	45.2	36.1	25.6	21.5	22.1	27.5
2430	0	41.3	50.2	45.6	35.4	25.3	21.9	23.2	31.2
2440	0	40.5	48.9	48.5	36.7	24.9	22.8	23.6	29.9
2450	0	43.9	51.0	48.9	38.4	28.7	24.5	24.0	33.3
2460	0	47.2	52.7	49.8	38.4	29.5	25.3	26.2	32.5
2470	0	51.0	53.6	55.7	50.6	35.9	30.4	27.4	33.7
2480	0	63.7	64.5	61.2	48.1	37.1	33.7	35.4	42.6
2490	0	65.8	71.3	60.3	49.8	40.9	37.1	42.6	50.6
2500	0	65.0	71.3	60.3	49.8	42.6	39.2	43.0	59.1
2510	0	65.0	74.7	67.1	52.3	43.0	39.2	41.8	59.1
2520	0	67.1	75.9	70.0	55.3	43.5	40.5	43.0	58.2
2530	0	70.0	75.5	69.2	54.8	43.5	40.9	45.6	58.2
2540	0	74.2	78.0	73.8	54.8	46.4	41.8	46.4	57.4
2550	0	70.4	79.3	74.6	54.4	48.1	43.4	46.0	59.9
2560	0	67.1	79.7	79.7	67.1	50.6	45.6	47.5	57.0
2570	0	72.1	86.1	82.9	69.0	53.2	48.1	48.7	60.7
2580	0	74.7	96.8	84.8	71.5	57.0	51.3	52.5	58.2
2590	0	75.9	94.9	88.0	71.5	66.4	55.1	55.1	60.7
2600	0	77.8	98.1	90.5	72.1	67.1	55.7	57.0	62.6
2610	0	82.3	98.7	92.4	69.6	72.1	57.6	59.5	65.2
2620	0	84.8	99.3	93.7	70.2	69.6	58.2	59.5	72.1
2630	0	106.3	118.1	102.1	83.5	66.7	63.3	75.1	75.1
2640	0	115.6	144.3	126.6	97.0	79.3	74.2	77.6	86.1
2650	0	138.4	146.0	127.4	97.0	85.2	76.8	80.2	92.0
2660	0	136.6	145.4	126.2	98.2	83.4	77.5	79.7	93.0
2670	0	133.6	145.4	124.0	93.0	83.4	75.3	79.7	93.8
2680	0	135.1	142.5	121.8	85.6	81.2	73.8	79.7	95.2
2690	0	130.7	135.1	118.9	87.1	80.5	74.6	79.7	96.0
2700	0	119.6	127.2	115.8	89.9	77.8	69.0	73.4	88.6
2710	0	113.3	122.1	100.0	80.4	77.8	62.0	67.1	79.7
2720	0	94.3	99.3	88.6	72.8	62.0	56.3	59.5	67.1
2730	0	83.5	88.0	74.7	56.9	50.6	43.7	44.3	58.8
2740	0	67.5	77.6	62.9	45.1	37.1	35.9	36.7	45.1
2750	0	47.7	66.2	47.2	28.7	23.6	22.8	21.1	27.4
2760	0	43.0	59.5	42.7	19.6	19.9	17.7	17.7	20.2
2770	0	43.0	53.5	37.3	16.8	17.1	14.9	16.5	19.6
2780	0	46.5	51.9	33.9	16.5	14.2	13.6	14.9	19.6
2790	0	40.2	49.7	35.4	15.8	13.0	10.4	14.2	19.3
2800	0	39.9	47.5	30.1	14.2	9.2	9.5	13.3	16.5
2810	0	39.5	46.8	28.2	13.6	12.3	8.9	11.1	20.9
2820	0	36.7	46.8	28.2	12.3	7.3	7.6	9.5	15.5
2830	0	41.4	46.8	23.7	10.4	8.5	6.3	9.2	14.2
2840	0	40.3	48.5	18.6	11.0	8.2	6.9	9.4	14.5
2850	0	38.9	47.8	16.5	10.4	7.9	6.3	8.5	15.8
2860	0	42.7	44.9	17.1	9.8	7.6	7.0	9.2	15.2

AMERIGAS
GLENDALE, AZ

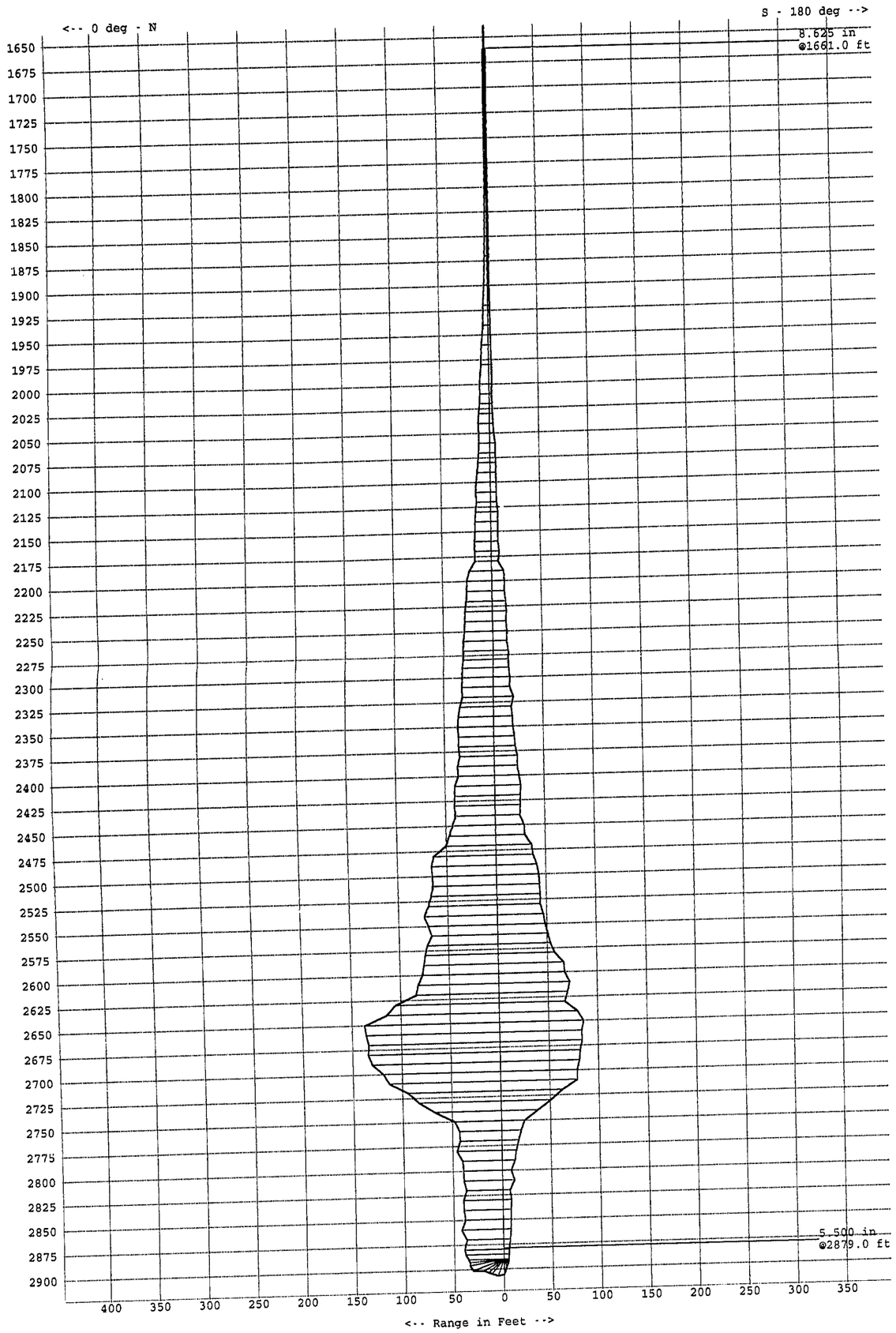
STORAGE WELL NO. 2
Thu, Mar 4, 1999

Depth	Tilt	N	NE	E	SE	S	SW	W	NW
2870	0	37.7	46.2	26.3	9.5	7.0	6.6	7.3	10.1
2880	0	39.9	45.0	16.2	8.9	5.4	6.3	6.7	13.6
2885	0	38.6	46.5	16.1	8.2	5.4	6.0	6.3	13.0
2890	0	36.1	49.3	26.6	9.8	5.1	5.7	5.7	12.3
2890	- 5	34.8	51.2	26.9	7.6	5.1	5.4	5.7	12.0
2890	-10	35.4	50.9	26.9	8.5	5.1	5.4	5.7	12.3
2890	-20	33.8	42.4	26.3	7.3	5.1	5.1	6.0	12.3
2890	-30	23.1	29.7	23.1	8.2	5.4	5.4	6.0	13.6
2890	-40	20.6	23.7	19.0	8.5	5.7	5.7	7.0	15.2
2890	-50	19.0	19.9	16.1	10.4	6.0	6.0	7.0	16.1
2890	-70	17.5	17.4	15.8	14.5	8.1	8.3	9.7	16.1
2890	-90	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5

AMERIGAS
GLENDALE, AZ

SONARWIRE, INC
Vertical Cross Section

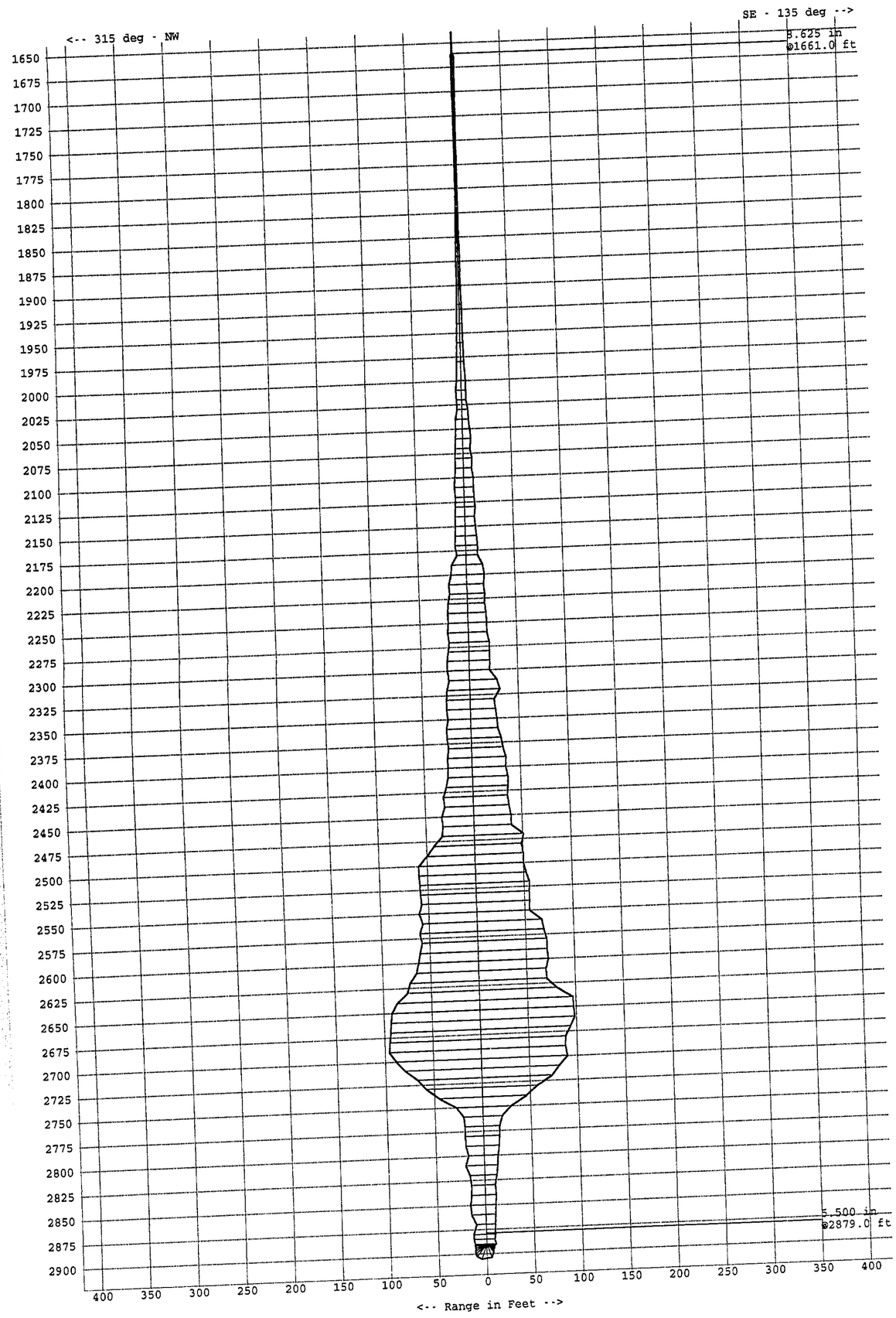
STORAGE WELL NO. 2
W-2 Thu, Mar 4, 1999



AMERIGAS
GLENDALE, AZ

SONARWIRE, INC
Vertical Cross Section

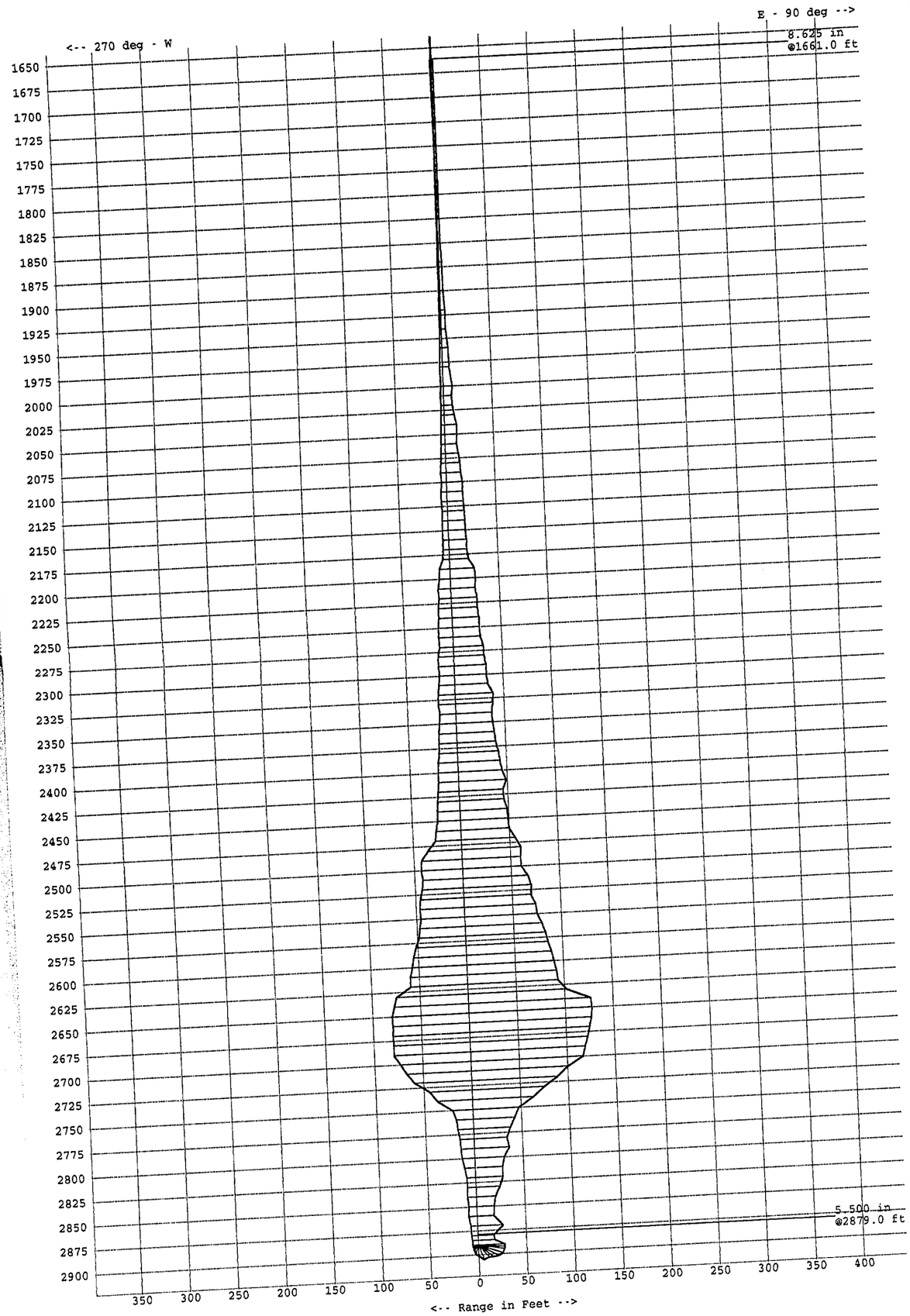
STORAGE WELL NO. 2
W-2 Thu, Mar 4, 1999



AMERIGAS
GLENDALE, AZ

SONARWIRE, INC
Vertical Cross Section

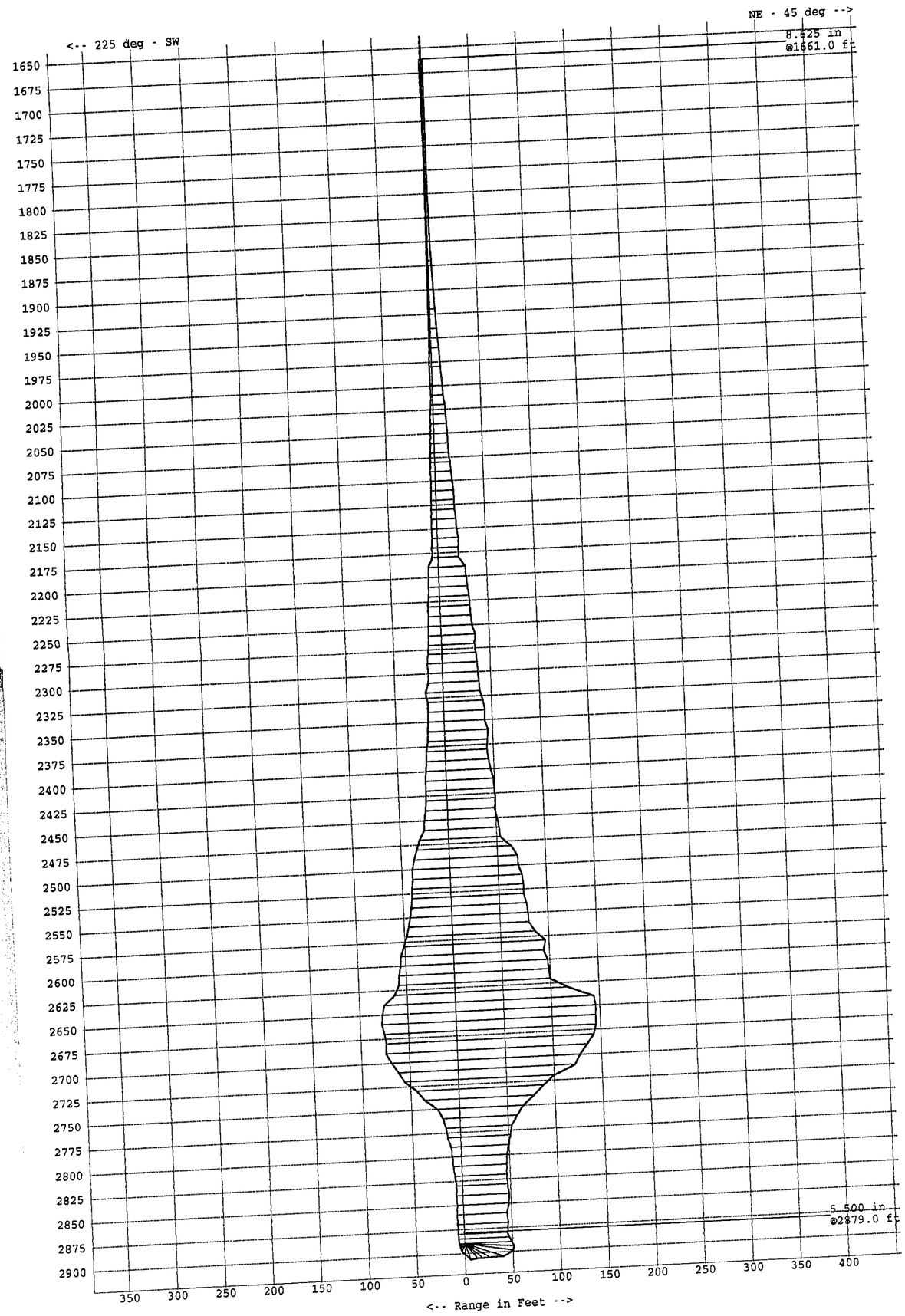
STORAGE WELL NO. 2
W-2 Thu, Mar 4, 1999



AMERIGAS
GLENDALE, AZ

SONARWIRE, INC
Vertical Cross Section

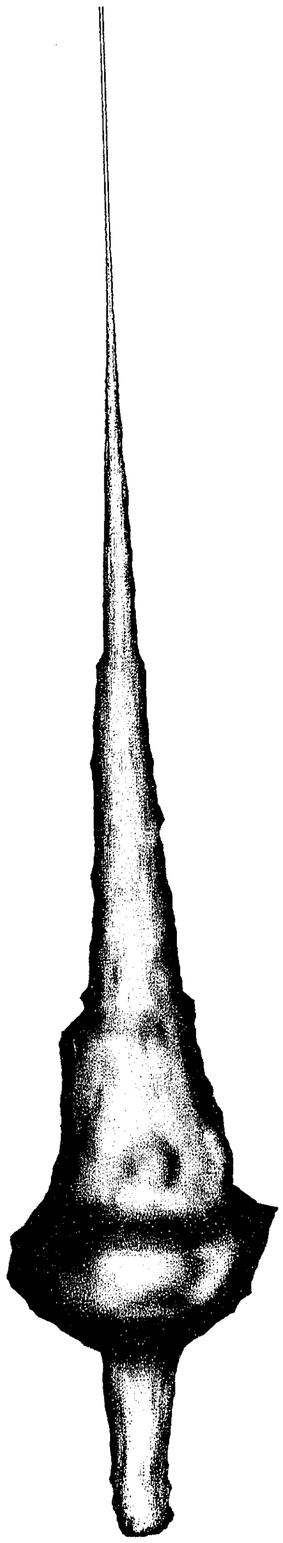
STORAGE WELL NO. 2
W-2 Thu, Mar 4, 1999



3D SHADE PLOT

AMERIGAS
GLENDALE, AZ
STORAGE WELL NO. 2
THUR. MAR. 4, 1999

VIEWING AZIMUTH: 45
AXIS TILT: -10 DEGS.



AMERIGAS
GLENDALE, AZ
STORAGE WELL NO. 2
THUR. MAR. 4, 1999

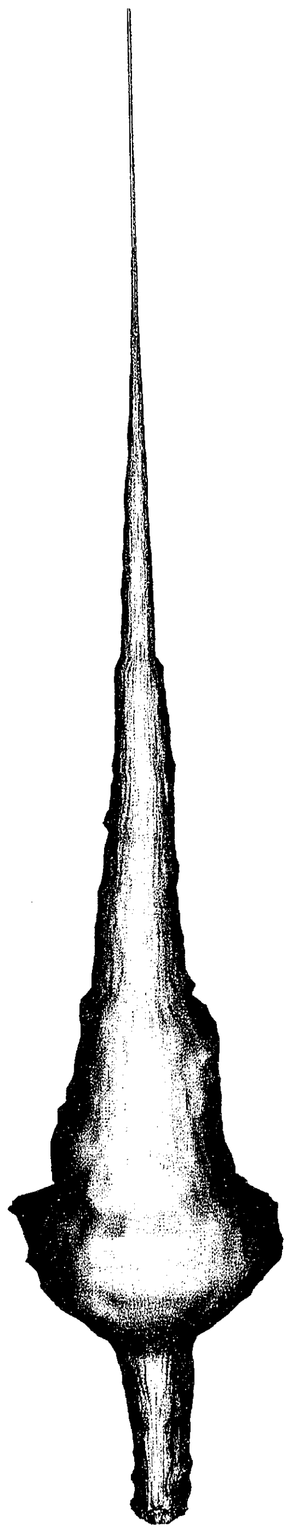
3D SHADE PLOT

VIEWING AZIMUTH: 135
AXIS TILT: -10 DEGS.

3D SHADE PLOT

AMERIGAS
GLENDALE, AZ
STORAGE WELL NO. 2
THUR. MAR. 4, 1999

VIEWING AZIMUTH: 225
AXIS TILT: -10 DEGS.



3D SHADE PLOT

AMERIGAS
GLENDALE, AZ
STORAGE WELL NO. 2
THUR. MAR. 4, 1999

VIEWING AZIMUTH: 315
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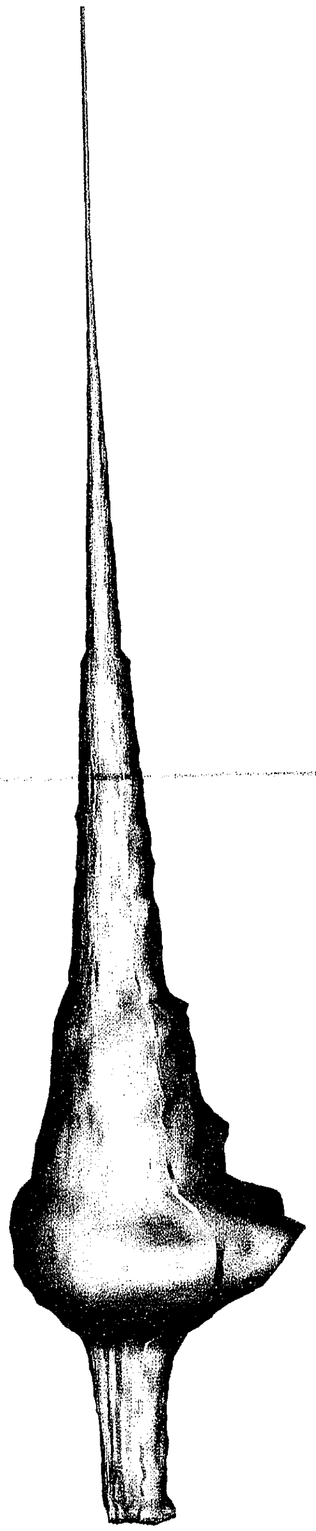

SONARWIRE INC.
Wall Ranges versus Depth (ft.)

AMERIGAS
GLENDALE, AZ

STORAGE WELL NO. 2
Thu, Mar 4, 1999

DEPTH: 1662 TILT: 0 RANGE: 25.0 VOS: 5950

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	1.5	1.5	1.5	1.6	1.7	1.7	1.7	1.7
22.5	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8
45.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
67.5	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7
90.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
112.5	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
135.0	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6
157.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
180.0	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
202.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
225.0	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5
247.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
270.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
292.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
315.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
337.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

DEPTH: 1750 TILT: 0 RANGE: 25.0 VOS: 5950

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
22.5	1.6	1.7	1.7	1.7	1.7	1.7	1.8	1.8
45.0	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7
67.5	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6
90.0	1.6	1.6	1.5	1.5	1.5	1.4	1.4	1.4
112.5	1.3	1.3	1.2	1.2	1.1	1.1	0.9	0.9
135.0	0.9	0.8	0.8	0.8	0.8	0.8	0.7	0.7
157.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
180.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
202.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
225.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
247.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
270.0	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
292.5	0.8	0.8	0.8	0.8	0.9	1.1	1.1	1.1
315.0	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.3
337.5	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.6

DEPTH: 1800 TILT: 0 RANGE: 25.0 VOS: 5950

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	1.8	1.8	1.7	1.8	1.8	1.8	1.8	1.8
22.5	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9
45.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9
67.5	1.9	1.9	1.8	1.8	1.7	1.6	1.6	1.6
90.0	1.6	1.6	1.6	1.6	1.5	1.5	1.4	1.4
112.5	1.3	1.3	1.3	1.2	1.2	1.1	0.9	0.9
135.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
157.5	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
180.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
202.5	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
225.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
247.5	0.9	0.9	0.9	0.9	0.9	1.1	1.1	1.1
270.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
292.5	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2
315.0	1.2	1.2	1.3	1.3	1.4	1.5	1.5	1.6
337.5	1.6	1.6	1.6	1.6	1.7	1.7	1.8	1.8

DEPTH: 1850 TILT: 0 RANGE: 20.0 VOS: 5982

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	2.6	2.6	2.6	2.7	2.8	2.8	2.9	2.9
22.5	2.9	2.9	3.0	2.9	2.9	2.8	2.8	2.7
45.0	2.7	2.6	2.6	2.6	2.5	2.4	2.4	2.4
67.5	2.3	2.1	2.1	2.0	1.9	1.9	1.9	1.8
90.0	1.8	1.8	1.7	1.7	1.6	1.4	1.3	1.3
112.5	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2
135.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
157.5	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
180.0	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1
202.5	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
225.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
247.5	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
270.0	1.1	1.1	1.1	1.1	1.1	1.2	1.3	1.3
292.5	1.3	1.3	1.3	1.4	1.5	1.6	1.7	1.8
315.0	1.9	1.9	2.0	2.0	2.0	2.1	2.2	2.2
337.5	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.6

DEPTH: 1870 TILT: 0 RANGE: 25.0 VOS: 5982

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	2.8	3.0	3.1	3.1	3.2	3.2	3.2	3.2
22.5	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.2
45.0	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.1
67.5	3.0	3.0	3.0	3.0	3.0	3.0	2.8	2.8
90.0	2.7	2.7	2.7	2.6	2.6	2.5	2.4	2.3
112.5	2.2	2.2	2.1	2.0	1.8	1.8	1.7	1.7
135.0	1.7	1.7	1.6	1.6	1.5	1.5	1.4	1.4
157.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
180.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
202.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
225.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
247.5	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.6
270.0	1.6	1.6	1.6	1.6	1.7	1.8	1.8	1.8
292.5	1.8	1.8	1.9	1.9	1.9	1.9	2.0	2.1
315.0	2.2	2.3	2.4	2.5	2.6	2.6	2.6	2.7
337.5	2.7	2.7	2.8	2.8	3.0	3.0	3.0	2.8

DEPTH: 1900 TILT: 0 RANGE: 25.0 VOS: 5982

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	4.0	3.9	4.0	4.1	4.2	4.3	4.3	4.3
22.5	4.4	4.4	4.5	4.5	4.5	4.4	4.5	4.5
45.0	4.5	4.5	4.5	4.6	4.5	4.5	4.4	4.4
67.5	4.3	4.2	4.1	3.8	3.7	3.6	3.4	3.2
90.0	3.0	3.0	2.6	2.6	2.5	2.4	2.1	2.0
112.5	1.9	1.9	1.8	1.7	1.5	1.4	1.3	1.4
135.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
157.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
180.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
202.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
225.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
247.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
270.0	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.6
292.5	1.7	1.8	1.9	2.0	2.0	2.1	2.2	2.2
315.0	2.3	2.4	2.5	2.5	2.7	3.1	3.0	3.1
337.5	3.2	3.3	3.3	3.4	3.4	3.6	3.7	3.8

DEPTH: 1920 TILT: 0 RANGE: 25.0 VOS: 5982

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	5.1	5.2	5.3	5.2	5.3	5.4	5.5	5.6
22.5	5.7	5.7	5.7	5.6	5.6	5.6	5.6	5.5
45.0	5.5	5.4	5.3	5.2	5.2	5.2	5.2	5.1
67.5	5.1	5.0	4.8	4.7	4.7	4.6	4.5	4.5
90.0	4.4	4.3	4.2	3.8	3.7	3.7	3.6	3.5
112.5	3.4	3.4	3.1	3.0	2.8	2.5	2.4	2.3
135.0	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1
157.5	2.1	2.0	1.9	1.8	1.8	1.8	1.7	1.7
180.0	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6
202.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
225.0	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
247.5	1.6	1.6	1.6	1.6	1.7	1.8	1.9	1.9
270.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0
292.5	2.1	2.2	2.2	2.2	2.3	2.4	2.6	2.7
315.0	2.8	3.0	3.1	3.3	3.4	3.5	3.6	3.7
337.5	3.8	3.9	4.0	4.1	4.2	4.3	4.6	4.8

DEPTH: 1940 TILT: 0 RANGE: 25.0 VOS: 5982

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	5.5	5.6	5.8	5.9	6.0	6.1	6.2	6.2
22.5	6.3	6.4	6.5	6.5	6.5	6.5	6.4	6.4
45.0	6.4	6.3	6.2	6.2	6.0	5.9	5.9	5.9
67.5	5.9	5.8	5.6	5.5	5.3	5.2	4.7	4.5
90.0	4.3	4.2	4.1	4.0	3.8	3.7	3.7	3.5
112.5	3.4	3.3	3.1	2.7	2.6	2.5	2.3	2.3
135.0	2.2	2.2	2.1	2.1	2.0	2.1	2.1	2.1
157.5	2.1	2.1	2.1	2.1	2.1	2.1	2.0	1.9
180.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.7
202.5	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7
225.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
247.5	1.7	1.7	1.8	1.8	1.9	1.9	2.0	2.0
270.0	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.2
292.5	2.3	2.4	2.5	2.5	2.5	2.6	2.7	2.8
315.0	3.3	3.3	3.4	3.5	3.5	3.6	3.7	3.8
337.5	4.2	4.4	4.7	4.8	5.0	5.1	5.2	5.3

DEPTH: 1960 TILT: 0 RANGE: 25.0 VOS: 5982

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	7.3	7.3	7.6	7.7	7.8	8.1	8.3	8.3
22.5	8.3	8.2	8.2	8.2	8.1	8.1	8.1	8.2
45.0	8.2	8.3	8.3	8.2	8.0	7.9	7.7	7.6
67.5	7.4	7.2	7.0	6.9	6.7	6.6	6.4	6.4
90.0	6.3	6.3	5.9	5.7	5.6	5.5	4.7	4.3
112.5	4.2	4.0	3.5	3.4	3.3	3.1	3.0	2.7
135.0	2.6	2.5	2.4	2.3	2.2	2.2	2.2	2.2
157.5	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
180.0	2.2	2.2	2.2	2.1	2.0	1.9	1.8	1.7
202.5	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7
225.0	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.9
247.5	1.9	1.9	1.9	2.0	2.1	2.2	2.4	2.4
270.0	2.4	2.4	2.5	2.6	2.7	2.7	2.7	2.7
292.5	2.8	3.0	3.1	3.2	3.3	3.4	3.5	3.7
315.0	3.8	4.2	4.5	4.8	5.2	5.4	5.6	5.8
337.5	5.9	5.9	6.0	6.1	6.3	6.6	6.7	7.2

DEPTH: 1980 TILT: 0 RANGE: 25.0 VOS: 5982

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	8.1	8.2	8.4	8.5	8.8	8.9	9.0	9.1
22.5	9.2	9.3	9.2	9.3	9.3	9.3	9.3	9.2
45.0	9.3	9.3	9.3	9.2	9.1	8.6	8.5	8.4
67.5	8.3	8.0	7.9	7.5	7.1	7.0	6.9	6.7
90.0	6.5	6.1	6.0	5.7	5.3	5.1	5.0	4.7
112.5	4.6	4.5	4.2	3.9	3.8	3.5	3.4	3.3
135.0	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.0
157.5	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.7
180.0	2.6	2.6	2.5	2.5	2.5	2.5	2.5	2.5
202.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
225.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
247.5	2.5	2.5	2.6	2.7	2.8	2.8	2.8	3.0
270.0	3.1	3.1	3.1	3.1	3.1	3.2	3.2	3.4
292.5	3.5	3.6	3.7	3.8	3.9	4.0	4.4	4.5
315.0	4.6	5.2	5.3	5.4	5.5	5.8	6.1	6.2
337.5	6.5	6.5	6.6	6.9	7.5	7.7	7.9	8.0

DEPTH: 2000 TILT: 0 RANGE: 25.0 VOS: 5982

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	10.0	10.2	10.2	10.1	10.0	9.9	10.0	10.3
22.5	10.5	10.6	10.6	10.5	10.5	10.6	10.6	10.5
45.0	10.5	10.2	10.0	10.3	10.3	10.2	10.3	9.7
67.5	9.6	9.4	9.4	9.4	9.3	9.3	9.3	9.2
90.0	9.1	8.6	8.6	8.3	8.2	7.4	6.9	6.2
112.5	5.5	5.4	5.3	5.3	5.2	4.7	4.6	4.3
135.0	4.2	4.1	4.0	3.4	3.3	3.2	3.1	3.0
157.5	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6
180.0	2.6	2.5	2.5	2.5	2.5	2.4	2.4	2.4
202.5	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1
225.0	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.2
247.5	2.3	2.3	2.3	2.3	2.4	2.5	2.6	2.7
270.0	2.8	3.0	3.0	3.0	3.0	3.1	3.2	3.3
292.5	3.5	3.6	3.7	4.0	4.1	4.5	4.6	5.0
315.0	5.1	5.6	5.7	6.1	6.9	7.0	7.1	7.2
337.5	7.3	7.4	7.6	7.7	7.9	8.1	8.1	8.9

DEPTH: 2010 TILT: 0 RANGE: 25.0 VOS: 5982

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	9.6	9.5	9.6	9.6	9.7	10.2	10.5	10.9
22.5	11.0	11.3	11.5	11.2	11.3	11.5	11.0	11.0
45.0	10.6	10.6	10.5	10.6	10.5	10.4	9.9	9.4
67.5	8.8	8.8	8.8	8.3	8.3	8.1	8.0	8.0
90.0	8.0	8.2	8.0	7.7	7.6	7.3	7.2	7.1
112.5	6.1	5.8	5.6	5.5	5.4	5.3	4.7	4.3
135.0	4.2	3.9	3.8	3.6	3.5	3.3	3.2	3.1
157.5	3.0	2.8	2.7	2.6	2.6	2.5	2.4	2.3
180.0	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0
202.5	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
225.0	1.9	1.9	1.9	2.1	2.2	2.3	2.5	2.6
247.5	2.7	2.8	3.0	3.1	3.1	3.1	3.2	3.3
270.0	3.5	3.6	3.7	3.8	3.9	4.0	4.2	4.3
292.5	4.5	4.8	5.0	5.1	5.2	5.3	5.4	5.8
315.0	6.1	6.2	6.2	6.2	6.3	6.4	7.0	7.0
337.5	7.2	7.6	7.7	8.1	8.4	8.8	9.1	9.5

DEPTH: 2020 TILT: 0 RANGE: 25.0 VOS: 5982

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	10.1	10.2	10.2	10.0	10.0	10.1	10.5	11.1
22.5	11.5	12.4	12.9	12.9	13.0	13.1	13.0	12.8
45.0	12.4	12.3	11.9	11.9	11.9	11.7	11.7	11.4
67.5	11.3	11.2	10.5	10.4	10.1	10.0	9.8	9.0
90.0	8.5	8.3	8.1	8.0	7.5	7.4	7.0	6.3
112.5	6.0	5.4	5.3	5.2	5.1	5.0	4.8	4.3
135.0	4.3	4.1	4.0	4.0	3.9	3.3	3.2	3.1
157.5	2.8	2.7	2.6	2.6	2.6	2.8	2.8	2.8
180.0	2.8	2.7	2.7	2.7	2.7	2.6	2.5	2.5
202.5	2.5	2.5	2.5	2.5	2.4	2.3	2.2.	2.2
225.0	2.2	2.2	2.3	2.4	2.4	2.4	2.4	2.4
247.5	2.5	2.5	2.5	2.6	2.6	2.7	2.8	3.0
270.0	3.1	3.2	3.3	3.3	3.4	3.5	3.7	3.8
292.5	4.0	4.1	4.4	4.7	4.8	5.0	5.2	5.3
315.0	5.5	5.8	6.4	7.0	7.1	7.3	7.5	8.0
337.5	8.3	8.5	9.0	9.4	9.6	9.7	9.9	10.0

DEPTH: 2030 TILT: 0 RANGE: 25.0 VOS: 5982

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	11.2	11.4	11.4	11.9	12.0	12.1	12.3	12.4
22.5	12.7	12.8	12.9	13.0	13.1	13.1	13.3	13.3
45.0	13.1	13.0	12.8	13.0	13.1	13.2	13.1	13.2
67.5	13.1	13.4	13.4	13.4	13.1	12.9	10.9	10.8
90.0	10.1	10.0	10.0	9.5	9.1	8.3	8.2	8.1
112.5	8.0	7.9	7.5	7.1	7.1	6.7	6.6	6.3
135.0	6.0	5.7	5.2	5.0	4.8	4.4	4.2	4.1
157.5	4.0	4.0	3.8	3.7	3.6	3.5	3.4	3.3
180.0	3.3	3.3	3.2	3.2	3.2	3.2	3.2	3.2
202.5	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
225.0	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
247.5	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.3
270.0	3.5	3.6	3.7	3.7	3.9	4.1	4.2	4.3
292.5	4.4	4.5	4.6	4.7	4.8	5.2	5.3	5.3
315.0	5.3	5.4	6.1	6.9	7.7	8.0	8.4	8.5
337.5	8.9	9.2	9.2	9.2	9.8	10.2	10.5	10.6

DEPTH: 2040 TILT: 0 RANGE: 25.0 VOS: 5982

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	11.8	12.0	12.3	12.4	12.7	12.9	12.9	13.0
22.5	13.0	13.2	13.4	13.5	13.4	13.4	13.3	13.3
45.0	13.5	13.6	13.4	13.4	13.4	13.4	13.4	13.5
67.5	13.4	12.9	12.7	12.5	12.5	12.7	12.7	12.4
90.0	12.3	12.0	10.3	10.2	10.1	10.0	9.9	9.8
112.5	9.6	9.1	7.7	7.5	7.2	7.0	6.9	6.4
135.0	6.2	5.9	5.6	5.3	5.1	5.0	4.8	4.5
157.5	4.5	4.4	4.3	4.2	4.1	4.0	3.8	3.6
180.0	3.6	3.5	3.4	3.4	3.4	3.4	3.3	3.3
202.5	3.3	3.3	3.2	3.2	3.2	3.2	3.2	3.2
225.0	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
247.5	3.3	3.4	3.4	3.4	3.5	3.6	3.7	3.8
270.0	3.9	4.0	4.1	4.2	4.3	4.4	4.7	4.8
292.5	5.1	5.2	5.4	5.6	5.9	6.0	6.5	6.9
315.0	7.1	7.8	8.3	8.3	8.4	8.8	8.9	9.1
337.5	9.4	9.6	9.9	10.1	10.4	10.8	11.1	11.4

DEPTH: 2050 TILT: 0 RANGE: 24.9 VOS: 5982

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	11.2	11.2	11.9	12.1	12.3	12.4	12.6	12.7
22.5	13.1	13.2	13.5	13.3	13.5	14.0	14.0	14.0
45.0	14.0	13.9	13.8	13.7	13.5	13.4	13.4	13.4
67.5	13.4	12.9	12.7	12.7	12.7	12.9	12.5	12.3
90.0	12.1	12.0	11.8	11.8	11.8	11.8	11.5	10.6
112.5	10.3	9.5	9.3	8.9	8.6	8.4	8.3	8.0
135.0	7.3	7.2	6.6	6.5	6.2	5.9	5.8	5.7
157.5	5.2	5.2	4.8	4.6	4.6	4.5	4.3	4.3
180.0	4.2	4.2	4.0	4.0	3.9	3.9	3.8	3.8
202.5	3.8	3.7	3.7	3.7	3.7	3.7	3.6	3.6
225.0	3.6	3.6	3.6	3.6	3.5	3.5	3.6	3.6
247.5	3.7	3.7	3.8	3.8	3.9	4.0	4.1	4.2
270.0	4.3	4.3	4.3	4.3	4.5	4.7	4.8	5.1
292.5	5.3	5.6	6.0	6.1	6.2	6.3	6.6	6.8
315.0	7.1	7.5	7.5	7.7	8.3	8.4	8.6	8.6
337.5	8.9	9.5	10.0	10.1	10.2	10.6	10.8	11.1

DEPTH: 2060 TILT: 0 RANGE: 25.0 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	11.3	11.3	11.6	11.9	12.2	12.5	13.0	13.7
22.5	14.0	14.1	14.5	14.5	14.6	14.8	14.6	14.6
45.0	14.5	14.3	14.3	14.3	14.5	14.5	14.0	13.8
67.5	13.8	13.7	13.4	13.0	12.5	12.2	12.0	11.8
90.0	11.7	11.4	11.4	11.3	11.2	11.1	11.1	10.9
112.5	10.7	10.6	10.5	10.4	10.0	9.4	8.5	8.5
135.0	8.3	8.2	8.0	7.9	7.9	7.8	7.4	7.3
157.5	7.2	6.9	6.7	6.5	6.3	6.2	5.9	5.8
180.0	5.2	5.1	5.0	4.8	4.7	4.6	4.3	4.2
202.5	4.1	4.0	3.9	3.8	3.8	3.8	3.8	3.8
225.0	3.8	3.7	3.6	3.7	3.6	3.7	3.7	3.7
247.5	3.7	3.7	3.8	3.8	3.9	4.0	4.1	4.2
270.0	4.3	4.3	4.3	4.4	4.6	4.7	4.7	5.0
292.5	5.1	5.2	5.3	5.7	5.8	6.4	7.0	7.0
315.0	7.7	8.4	8.4	8.9	8.9	9.0	9.1	9.3
337.5	9.4	9.6	9.7	9.7	9.7	10.1	10.5	10.9

DEPTH: 2070 TILT: 0 RANGE: 35.0 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	11.8	12.2	12.7	13.0	13.1	13.6	13.7	13.9
22.5	14.5	14.6	14.8	14.8	14.9	14.6	14.8	14.9
45.0	14.8	14.8	14.8	14.9	14.9	14.9	14.9	14.9
67.5	14.8	14.6	14.5	14.2	14.2	13.9	13.4	13.3
90.0	13.0	12.5	12.2	11.9	11.5	10.9	10.3	9.9
112.5	9.6	9.0	8.4	8.3	8.1	7.5	7.4	7.1
135.0	6.9	6.8	6.5	6.2	6.2	6.2	6.2	6.2
157.5	6.2	6.0	5.9	5.6	5.6	5.6	5.6	5.5
180.0	5.3	5.0	4.9	4.7	4.7	4.7	4.7	4.7
202.5	4.6	4.6	4.4	4.4	4.4	4.4	4.4	4.4
225.0	4.3	4.3	4.1	4.1	4.3	4.1	4.1	4.3
247.5	4.3	4.4	4.4	4.4	4.6	4.6	4.6	4.7
270.0	4.7	4.7	4.9	5.0	5.2	5.3	5.8	5.9
292.5	6.0	6.2	6.8	6.9	7.4	7.5	8.0	8.1
315.0	8.3	8.4	8.6	9.0	9.1	9.3	9.4	9.6
337.5	9.7	9.9	10.3	10.6	11.1	11.1	11.2	11.5

DEPTH: 2080 TILT: 0 RANGE: 35.0 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	12.5	13.3	13.4	13.9	14.0	14.2	14.5	14.6
22.5	14.9	15.0	15.2	15.3	15.5	15.8	15.6	15.8
45.0	15.9	15.9	15.9	15.9	15.8	15.6	15.5	15.5
67.5	15.8	15.5	15.3	15.2	14.8	14.9	14.6	14.3
90.0	14.3	14.3	14.2	13.6	12.8	12.5	11.8	11.7
112.5	11.2	10.9	10.8	10.6	10.3	9.7	9.6	9.1
135.0	9.0	8.7	7.8	7.7	7.5	7.2	7.2	6.9
157.5	6.8	6.5	6.3	6.0	5.9	5.8	5.6	5.6
180.0	5.6	5.6	5.6	5.3	5.2	5.0	5.0	5.0
202.5	5.0	4.9	4.7	4.9	4.7	4.9	4.6	4.6
225.0	4.7	4.7	4.7	4.9	4.7	4.9	4.9	5.0
247.5	5.0	5.0	5.2	5.2	5.2	5.2	5.3	5.5
270.0	5.5	5.6	5.8	5.9	6.0	6.3	6.5	6.6
292.5	6.8	6.9	7.1	7.4	7.5	7.8	8.1	8.4
315.0	8.6	9.0	9.1	9.3	9.4	9.9	9.9	10.3
337.5	10.5	10.6	10.8	10.9	11.1	11.7	11.8	12.4

DEPTH: 2090 TILT: 0 RANGE: 35.0 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	13.6	14.0	14.2	14.3	14.3	14.6	14.9	14.9
22.5	15.0	15.3	15.5	15.6	15.6	15.6	16.2	16.5
45.0	16.7	16.8	16.8	16.8	16.8	16.7	16.5	16.7
67.5	16.7	16.5	16.4	16.2	15.9	15.8	15.8	15.2
90.0	14.6	14.2	13.6	13.1	12.5	11.9	11.5	11.2
112.5	10.8	10.3	9.9	9.7	9.4	9.1	9.0	8.7
135.0	8.3	8.0	7.5	7.2	7.1	7.1	7.1	7.1
157.5	7.1	7.1	6.6	6.5	6.3	6.2	5.9	5.9
180.0	5.6	5.6	5.5	5.2	5.0	5.2	5.2	5.2
202.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
225.0	5.0	5.0	5.0	5.0	5.2	5.2	5.2	5.2
247.5	5.3	5.3	5.5	5.5	5.6	5.8	5.9	5.9
270.0	5.9	6.2	6.3	6.9	6.9	6.9	7.2	7.5
292.5	7.7	8.0	8.0	8.3	8.4	8.4	8.4	8.6
315.0	8.7	9.1	9.3	9.4	10.3	10.3	10.3	10.3
337.5	10.9	11.1	11.5	12.1	12.2	12.7	13.0	13.3

DEPTH: 2100 TILT: 0 RANGE: 35.0 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	14.6	15.2	15.8	15.8	15.9	16.1	16.4	16.4
22.5	16.4	16.4	16.8	17.0	17.1	17.1	17.1	17.1
45.0	17.6	17.6	17.7	17.7	17.7	17.8	17.8	17.8
67.5	17.7	17.7	17.7	17.8	17.3	17.0	16.5	16.5
90.0	16.1	15.6	15.6	14.9	14.3	14.0	13.6	13.4
112.5	13.3	12.1	11.7	11.5	11.1	10.6	10.3	10.2
135.0	9.7	9.3	8.9	8.6	7.7	7.5	7.1	6.9
157.5	6.9	6.6	6.6	6.3	6.2	6.0	6.0	6.0
180.0	5.8	5.6	5.8	5.8	5.6	5.3	5.2	5.0
202.5	4.9	4.6	4.6	4.6	4.6	4.6	4.6	4.6
225.0	4.7	4.7	4.7	4.7	4.7	4.7	4.9	4.9
247.5	5.0	5.0	5.0	5.0	5.0	5.2	5.3	5.3
270.0	5.5	5.8	5.9	5.9	6.2	6.3	6.6	6.9
292.5	7.1	7.2	7.4	7.8	8.0	8.4	8.7	9.1
315.0	9.3	9.6	9.6	9.9	10.0	10.2	10.5	10.6
337.5	11.4	11.9	12.2	12.5	13.1	13.4	14.0	14.5

DEPTH: 2110 TILT: 0 RANGE: 35.0 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	15.3	15.9	16.4	16.5	16.5	16.8	17.1	17.0
22.5	16.8	17.0	17.3	17.8	18.0	18.4	18.6	18.6
45.0	18.6	18.6	18.6	18.6	18.6	18.7	18.9	18.6
67.5	18.3	18.0	17.7	17.4	17.0	16.7	16.5	16.1
90.0	15.9	14.9	14.9	12.8	13.3	12.8	12.5	12.4
112.5	11.8	11.7	11.5	11.2	11.2	10.8	10.5	10.0
135.0	9.7	9.3	8.7	8.4	8.1	8.0	7.7	7.4
157.5	7.5	6.9	6.9	6.6	6.5	6.3	6.2	6.0
180.0	5.8	5.8	5.6	5.5	5.3	5.2	5.0	4.9
202.5	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
225.0	4.9	4.9	4.9	4.9	5.0	5.2	5.2	5.3
247.5	5.5	5.6	5.5	5.6	5.6	5.9	6.2	6.2
270.0	6.3	6.5	6.8	6.9	7.1	7.2	7.4	7.5
292.5	8.1	8.3	8.6	8.7	8.9	9.7	9.9	10.0
315.0	10.2	10.6	10.8	10.9	11.1	11.8	11.9	12.1
337.5	12.2	12.4	12.7	13.3	13.4	13.6	14.3	14.5

DEPTH: 2120 TILT: 0 RANGE: 35.0 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	14.6	15.6	15.9	15.8	15.8	16.2	16.5	16.7
22.5	16.8	17.0	17.3	17.4	17.4	18.1	18.6	18.7
45.0	18.7	18.6	18.6	18.3	18.3	18.0	18.0	18.0
67.5	17.8	17.7	17.6	17.4	17.3	17.1	16.8	16.7
90.0	16.5	16.5	16.5	15.9	15.3	14.8	14.3	13.9
112.5	13.3	13.0	12.5	12.1	11.7	11.1	10.6	10.0
135.0	9.9	9.4	9.3	8.7	8.6	8.4	8.3	7.8
157.5	7.7	7.5	7.2	6.8	6.8	6.6	6.5	6.3
180.0	6.2	6.0	5.9	5.8	5.8	5.8	5.8	5.5
202.5	5.5	5.3	5.3	5.2	5.2	5.0	5.0	5.0
225.0	5.0	5.0	5.0	5.0	5.2	5.2	5.2	5.2
247.5	5.3	5.3	5.3	5.5	5.6	5.9	6.0	6.2
270.0	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4
292.5	7.5	7.7	8.0	8.3	8.4	8.7	8.9	9.0
315.0	9.3	9.4	9.7	10.2	10.6	11.2	11.7	12.1
337.5	12.4	12.8	13.3	13.6	13.9	14.0	14.2	14.3

DEPTH: 2130 TILT: 0 RANGE: 35.0 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	15.8	15.9	15.9	16.1	16.4	16.8	16.8	17.3
22.5	17.8	18.1	18.1	18.4	18.6	18.6	18.6	18.6
45.0	18.9	19.0	19.0	18.9	18.9	19.0	19.0	18.9
67.5	18.9	18.6	18.6	18.3	18.0	17.7	17.4	17.0
90.0	17.0	16.5	16.4	15.9	15.8	15.6	15.5	15.2
112.5	14.0	13.3	13.0	12.8	12.2	11.9	11.5	11.1
135.0	10.9	10.3	10.0	9.7	9.3	9.1	8.9	8.9
157.5	8.7	8.7	8.4	8.1	7.7	7.7	7.7	7.4
180.0	7.2	7.1	6.9	6.8	6.6	6.3	5.8	5.6
202.5	5.6	5.6	5.5	5.6	5.3	5.3	5.3	5.3
225.0	5.3	5.3	5.3	5.3	5.3	5.3	5.5	5.6
247.5	5.5	5.5	5.6	5.6	5.8	6.0	5.8	5.8
270.0	5.8	6.2	6.3	6.3	6.3	6.5	6.6	6.9
292.5	7.1	7.1	7.7	8.1	8.4	8.6	9.1	9.3
315.0	9.6	9.6	10.3	10.6	10.8	11.1	11.5	11.9
337.5	12.2	12.5	13.0	13.4	14.0	14.6	15.2	15.6

DEPTH: 2140 TILT: 0 RANGE: 35.0 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	16.4	16.8	17.3	17.6	17.7	17.8	18.0	18.1
22.5	18.4	18.6	18.6	18.7	19.3	19.9	19.9	19.9
45.0	19.9	19.8	19.6	19.6	19.5	19.0	19.0	18.9
67.5	18.7	18.6	18.6	18.6	18.3	17.8	17.6	17.4
90.0	17.1	16.7	15.9	15.3	14.8	14.5	14.0	13.3
112.5	12.8	12.4	12.1	11.8	11.5	10.9	10.5	9.7
135.0	9.6	9.3	9.4	9.0	9.0	8.7	8.4	8.6
157.5	8.1	8.0	7.8	7.7	7.4	7.4	7.1	6.8
180.0	6.8	6.5	6.3	6.3	6.2	6.2	5.9	6.0
202.5	5.8	5.8	5.8	5.8	5.6	5.5	5.5	5.6
225.0	5.6	5.6	5.5	5.5	5.5	5.5	5.5	5.5
247.5	5.6	5.6	5.8	5.8	5.8	5.9	5.9	6.0
270.0	6.2	6.3	6.3	6.5	6.8	7.1	7.4	7.8
292.5	8.0	8.0	8.1	8.7	8.6	9.3	9.7	10.0
315.0	10.5	10.9	11.1	11.4	11.7	12.2	12.2	12.8
337.5	13.3	13.7	14.0	14.3	14.5	14.8	15.0	15.8

DEPTH: 2150 TILT: 0 RANGE: 35.0 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	16.5	16.8	16.8	17.4	17.8	18.4	18.6	18.9
22.5	18.9	18.9	19.0	19.2	19.8	19.9	19.9	20.1
45.0	20.4	20.5	20.4	20.4	20.2	20.2	20.2	20.2
67.5	20.1	19.8	19.8	19.0	18.6	18.3	18.1	17.4
90.0	17.3	17.0	16.8	16.4	15.8	15.5	14.9	14.0
112.5	13.7	13.4	13.0	12.7	11.4	11.1	11.1	10.6
135.0	10.3	9.7	9.4	9.3	9.0	8.7	8.7	8.6
157.5	8.1	7.8	7.4	7.2	7.1	6.9	6.9	6.9
180.0	6.8	6.6	6.5	6.5	6.3	5.9	5.9	5.8
202.5	5.8	5.6	5.5	5.5	5.6	5.6	5.6	5.6
225.0	5.6	5.6	5.6	5.6	5.6	5.6	5.8	5.8
247.5	5.8	5.8	5.9	5.9	5.9	6.2	6.2	6.2
270.0	6.3	6.3	6.3	6.5	6.8	6.9	7.2	7.5
292.5	7.7	7.8	8.0	8.1	8.3	8.4	9.1	9.6
315.0	10.5	10.8	11.2	11.4	12.1	12.2	12.5	13.0
337.5	13.3	13.6	14.0	14.5	14.6	15.5	15.8	15.9

DEPTH: 2160 TILT: 0 RANGE: 35.0 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	17.1	17.4	17.8	18.3	18.4	18.6	18.9	19.3
22.5	19.8	20.1	20.4	20.7	20.8	21.1	21.2	21.8
45.0	21.8	21.8	21.5	21.4	21.1	20.5	20.4	20.4
67.5	20.4	20.4	19.8	19.6	19.5	19.2	18.7	18.4
90.0	18.0	17.4	17.3	17.0	16.8	16.2	15.6	14.8
112.5	14.5	14.3	14.0	13.1	12.8	12.1	12.2	11.8
135.0	11.5	10.9	10.3	9.7	9.4	9.1	8.9	8.3
157.5	8.0	7.7	7.7	7.7	7.4	7.4	7.2	7.1
180.0	6.8	6.6	6.3	6.2	6.0	5.9	5.8	5.6
202.5	5.6	5.6	5.6	5.5	5.5	5.5	5.5	5.5
225.0	5.5	5.5	5.5	5.5	5.5	5.5	5.6	5.6
247.5	5.6	5.6	5.8	5.9	6.0	6.2	6.2	6.2
270.0	6.3	6.5	6.5	6.8	6.9	7.2	7.4	7.7
292.5	7.8	8.1	8.3	8.4	9.0	9.4	9.7	10.3
315.0	10.8	10.9	11.5	11.8	11.9	12.1	12.8	13.6
337.5	13.7	14.0	14.3	14.9	15.3	15.5	15.8	16.7

DEPTH: 2170 TILT: 0 RANGE: 50.0 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	17.1	17.3	17.7	18.1	18.6	19.4	19.4	19.8
22.5	20.0	20.3	20.7	20.9	21.1	21.1	21.3	21.3
45.0	21.3	21.3	21.5	21.1	20.5	20.7	20.7	20.7
67.5	20.9	20.7	20.3	19.8	19.6	19.6	19.2	18.1
90.0	17.9	17.7	17.1	16.9	16.7	16.0	15.8	15.4
112.5	15.0	14.3	13.9	13.7	13.3	12.7	12.0	12.2
135.0	12.0	11.4	11.0	10.3	10.8	10.1	9.5	9.5
157.5	9.5	8.4	8.4	8.9	8.4	8.4	8.2	8.0
180.0	8.0	7.8	7.4	7.2	6.8	6.5	6.8	6.3
202.5	6.3	6.1	7.2	6.1	5.9	5.9	5.7	5.7
225.0	6.3	6.1	6.1	5.7	5.7	6.5	5.7	5.7
247.5	5.9	5.7	5.7	5.7	6.3	6.1	6.5	6.3
270.0	6.5	6.5	6.8	7.0	7.2	7.6	7.8	8.0
292.5	8.2	8.4	8.6	8.9	8.9	10.1	10.1	10.8
315.0	11.4	11.8	11.4	11.6	12.0	12.4	12.7	13.5
337.5	13.7	14.1	14.3	14.6	15.0	15.2	15.2	16.5

DEPTH: 2180 TILT: 0 RANGE: 50.0 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	17.1	17.5	17.7	18.1	18.6	18.8	19.2	19.8
22.5	20.0	20.3	20.5	20.5	20.7	21.3	21.7	21.5
45.0	21.3	21.3	21.1	21.1	21.3	21.3	21.1	20.9
67.5	20.9	20.9	20.9	20.7	20.5	20.3	20.3	19.8
90.0	19.4	19.2	19.0	18.1	17.7	17.1	16.5	15.6
112.5	15.2	15.0	14.6	14.1	13.5	13.1	12.9	12.2
135.0	11.8	11.4	11.2	10.5	10.1	9.5	9.1	8.4
157.5	8.0	7.8	7.6	7.4	7.2	7.0	6.8	6.5
180.0	6.5	6.5	6.5	6.5	6.3	6.3	6.3	6.3
202.5	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
225.0	6.1	6.1	6.1	6.1	6.1	6.1	5.9	5.9
247.5	5.9	6.1	6.1	6.3	6.5	6.8	7.2	7.2
270.0	7.4	7.6	7.6	8.0	8.0	8.0	8.2	8.2
292.5	7.8	8.0	8.2	8.2	8.6	9.1	9.1	9.5
315.0	9.7	10.1	10.3	11.2	11.8	12.2	12.9	13.3
337.5	13.5	13.7	14.6	15.2	15.4	15.6	16.2	16.9

DEPTH: 2190 TILT: 0 RANGE: 50.0 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	23.2	23.4	23.6	24.0	24.3	25.3	25.5	25.7
22.5	26.2	26.2	26.4	26.6	26.8	27.0	27.2	27.4
45.0	27.6	27.8	29.1	29.1	29.1	28.7	28.5	28.5
67.5	28.1	27.6	27.4	27.2	26.8	26.2	25.7	25.3
90.0	24.9	24.7	23.8	23.6	23.0	22.4	21.9	20.9
112.5	20.7	20.0	19.2	19.2	19.2	18.8	18.1	17.3
135.0	16.7	16.5	15.4	15.2	15.2	15.0	14.6	13.9
157.5	13.7	13.5	13.3	13.7	13.5	13.1	12.2	12.2
180.0	12.2	12.0	11.8	11.6	11.2	10.8	10.3	11.2
202.5	11.0	10.8	11.0	10.3	10.3	10.3	10.3	10.5
225.0	10.8	10.5	11.0	10.5	10.5	10.5	10.5	11.0
247.5	10.8	11.0	10.8	11.2	11.2	11.0	11.0	11.2
270.0	11.2	11.2	11.6	11.4	11.6	12.0	12.2	12.4
292.5	13.3	13.5	13.3	13.1	13.7	14.1	14.8	15.2
315.0	15.4	16.0	16.5	17.1	17.5	17.5	17.7	18.1
337.5	19.8	20.3	22.2	22.6	22.4	22.4	21.9	22.4

DEPTH: 2200 TILT: 0 RANGE: 50.0 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	25.5	25.7	25.7	25.7	25.5	26.2	26.4	26.8
22.5	27.2	27.4	27.6	27.8	27.8	28.1	28.3	28.3
45.0	28.3	28.5	28.5	28.5	28.3	28.1	27.8	27.8
67.5	27.4	27.0	27.0	27.2	27.0	26.8	26.4	26.2
90.0	25.7	25.3	24.7	24.3	23.8	23.4	22.8	22.2
112.5	21.5	21.3	20.9	20.7	19.8	19.6	19.4	18.6
135.0	18.1	17.9	17.5	16.0	15.2	14.1	13.7	13.5
157.5	13.5	13.7	13.9	14.1	13.9	13.7	13.7	13.1
180.0	12.7	12.7	12.4	12.4	12.4	12.4	12.4	11.8
202.5	11.6	11.4	11.2	11.0	10.8	10.5	10.5	10.5
225.0	10.5	10.5	10.5	10.8	10.8	10.8	10.8	11.0
247.5	11.0	11.0	11.2	11.2	11.2	11.2	11.2	11.4
270.0	11.6	11.6	11.8	11.8	12.2	12.2	12.9	13.1
292.5	13.7	13.9	14.3	14.6	14.8	15.2	15.8	16.0
315.0	16.7	17.1	17.7	18.4	18.6	18.8	19.4	19.6
337.5	19.8	20.0	21.1	22.2	22.8	23.6	24.5	25.5

DEPTH: 2210 TILT: 0 RANGE: 50.0 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	25.9	26.4	26.8	27.4	27.8	28.3	28.5	28.9
22.5	29.3	30.0	30.0	30.2	30.4	30.2	29.5	29.3
45.0	29.3	29.3	29.1	28.7	28.7	28.7	28.5	28.5
67.5	27.8	27.6	27.4	27.0	27.0	26.8	26.6	26.4
90.0	24.5	24.0	23.8	22.4	21.9	21.7	21.7	21.5
112.5	21.3	19.2	19.0	18.8	18.6	18.1	17.9	17.3
135.0	16.9	16.7	16.2	15.8	15.6	15.4	15.2	14.8
157.5	14.6	14.6	14.3	13.9	13.9	13.3	12.9	12.7
180.0	12.4	12.2	12.0	11.8	11.8	11.8	11.6	11.4
202.5	11.4	11.0	11.0	10.8	10.8	10.8	11.0	11.0
225.0	11.0	11.0	11.0	11.2	11.4	11.6	11.6	11.6
247.5	11.6	11.8	11.8	11.6	12.0	12.2	12.4	12.7
270.0	13.3	13.5	13.9	14.3	14.6	15.4	16.5	16.9
292.5	16.9	17.1	17.3	17.3	17.7	17.9	17.9	18.6
315.0	19.0	19.0	19.2	19.4	20.0	20.7	21.1	21.7
337.5	22.4	22.8	23.2	23.6	24.0	24.5	25.1	25.3

DEPTH: 2220 TILT: 0 RANGE: 50.0 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	26.8	27.2	28.7	28.5	28.5	28.5	28.5	28.7
22.5	28.9	29.5	29.7	29.3	29.3	29.5	29.5	30.2
45.0	30.6	30.8	30.6	30.6	30.2	29.7	29.5	29.5
67.5	29.5	29.3	29.1	28.9	27.6	27.2	26.8	26.6
90.0	26.4	25.3	24.7	24.3	23.6	23.0	22.4	22.2
112.5	21.7	21.3	20.5	19.8	19.6	19.0	17.9	17.7
135.0	17.9	17.3	17.1	16.2	16.0	15.8	16.0	15.8
157.5	15.8	15.0	15.0	14.8	14.6	14.3	13.7	13.5
180.0	13.7	12.9	12.9	12.7	12.7	11.8	11.6	11.0
202.5	11.6	11.4	11.4	11.4	11.4	11.4	11.4	11.4
225.0	11.4	11.2	11.4	11.4	11.4	11.8	11.8	11.8
247.5	11.6	11.8	11.8	11.8	12.0	12.2	12.4	12.4
270.0	13.1	13.3	13.5	13.7	13.9	14.6	14.8	15.4
292.5	15.4	15.8	16.2	16.2	16.7	16.9	17.1	17.5
315.0	18.6	19.2	19.8	19.8	20.5	21.1	21.3	22.4
337.5	22.6	23.2	23.6	23.8	24.5	25.5	25.7	26.2

DEPTH: 2230 TILT: 0 RANGE: 50.0 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	28.1	28.3	28.7	28.7	28.9	29.1	29.3	29.7
22.5	30.0	30.4	30.4	30.6	30.8	31.0	30.8	30.8
45.0	30.8	30.8	30.8	30.6	30.4	30.6	30.4	30.2
67.5	30.2	29.7	29.3	29.3	28.7	28.1	27.6	27.0
90.0	26.2	25.3	24.7	24.0	23.4	22.6	21.9	21.5
112.5	21.1	20.7	20.0	19.4	19.0	18.4	18.1	17.7
135.0	17.3	17.9	17.5	16.9	15.6	16.2	16.0	15.6
157.5	15.4	15.4	15.2	15.4	15.4	15.0	15.0	14.6
180.0	13.9	13.7	13.5	13.3	12.9	12.7	12.7	12.7
202.5	12.7	12.7	12.7	12.7	12.4	12.4	12.2	12.7
225.0	12.7	12.7	12.9	12.9	13.3	13.1	12.9	13.1
247.5	13.1	13.3	13.5	13.3	13.5	13.5	13.5	13.7
270.0	14.1	14.6	14.8	14.8	15.0	15.4	15.8	16.5
292.5	16.7	16.9	17.3	17.3	17.3	17.9	19.2	20.0
315.0	20.3	20.5	21.1	21.5	22.2	22.8	23.2	23.6
337.5	24.3	24.9	25.9	25.7	25.7	26.2	27.0	27.6

DEPTH: 2240 TILT: 0 RANGE: 50.0 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	28.3	28.9	29.5	30.2	30.4	30.8	31.6	31.6
22.5	31.6	32.1	31.9	31.9	31.6	31.4	31.6	31.6
45.0	31.6	31.6	31.6	31.6	31.4	31.2	30.8	30.6
67.5	30.4	30.2	30.0	29.1	29.3	28.1	28.1	27.6
90.0	27.4	27.0	25.1	24.5	24.3	23.8	23.6	23.0
112.5	22.4	21.7	21.1	20.9	20.5	20.3	19.6	18.8
135.0	18.6	18.4	17.9	17.3	17.3	16.7	16.5	15.4
157.5	15.4	15.0	14.6	14.6	14.6	14.3	14.3	13.9
180.0	13.5	13.1	12.9	12.7	12.4	12.2	12.2	12.2
202.5	12.4	12.4	12.4	12.4	12.4	12.4	12.7	12.4
225.0	12.4	12.7	12.7	12.7	12.9	13.1	13.1	12.9
247.5	13.5	13.7	13.5	13.5	13.5	13.7	13.9	14.1
270.0	14.1	14.3	15.2	15.2	14.8	15.0	15.2	16.0
292.5	16.7	17.3	17.5	18.1	18.8	19.2	19.8	20.5
315.0	21.1	21.5	22.2	22.6	22.8	23.4	24.9	25.1
337.5	25.7	25.9	26.2	26.4	26.2	26.6	27.2	28.1

DEPTH: 2250 TILT: 0 RANGE: 49.9 VOS: 5990

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	29.1	29.5	30.5	30.7	31.2	31.4	31.2	31.6
22.5	31.6	31.6	31.6	32.0	32.2	32.4	32.2	32.4
45.0	32.6	32.9	33.1	33.3	31.6	31.2	31.0	31.0
67.5	30.7	30.5	30.3	29.7	29.3	28.2	27.8	27.6
90.0	27.4	27.0	26.1	25.7	24.8	24.0	23.4	22.7
112.5	22.3	22.1	21.5	21.1	20.4	20.0	19.8	19.4
135.0	18.7	17.9	17.7	17.5	17.3	17.1	16.8	16.2
157.5	16.0	15.6	15.0	14.7	14.7	14.5	14.5	14.3
180.0	14.3	14.1	13.9	13.9	13.5	13.5	13.3	13.3
202.5	13.3	13.1	12.8	13.1	13.3	13.3	13.3	13.3
225.0	13.1	13.1	13.1	13.1	13.1	13.3	13.5	13.7
247.5	14.3	14.5	15.0	14.7	14.7	15.0	14.7	15.2
270.0	15.2	15.2	15.0	15.4	15.4	15.8	16.0	16.6
292.5	17.1	17.9	18.3	19.0	19.4	19.8	20.2	20.8
315.0	20.8	21.1	22.1	22.3	23.2	24.0	24.2	24.6
337.5	24.8	25.5	25.7	26.7	27.0	26.7	27.6	28.6

DEPTH: 2260 TILT: 0 RANGE: 50.0 VOS: 5999

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	30.4	31.0	31.2	31.2	31.4	31.8	32.7	32.7
22.5	32.7	32.7	32.9	33.1	33.3	33.7	34.0	35.4
45.0	35.2	34.6	34.4	34.4	34.2	33.5	32.9	32.5
67.5	31.8	31.8	31.4	31.0	30.6	30.2	29.5	28.7
90.0	27.8	27.0	26.4	25.9	25.7	24.9	24.5	24.0
112.5	22.1	21.9	21.3	21.1	20.9	20.2	20.0	19.4
135.0	18.8	18.3	17.9	17.5	17.9	18.1	17.7	16.7
157.5	15.8	15.6	15.6	15.0	15.2	15.0	14.8	14.3
180.0	13.9	13.7	14.1	14.1	14.1	13.7	13.7	13.9
202.5	13.7	13.7	13.7	13.5	13.3	13.3	13.7	13.5
225.0	13.5	13.7	13.7	13.7	13.7	13.9	13.9	13.9
247.5	13.9	14.1	14.3	14.3	14.6	15.0	15.2	14.8
270.0	15.0	15.2	15.4	15.8	15.8	16.2	16.7	17.1
292.5	17.3	17.9	19.2	19.8	20.0	20.2	20.7	21.1
315.0	21.9	22.6	23.0	23.6	24.3	24.3	24.5	25.5
337.5	26.6	27.2	27.6	27.8	28.7	29.1	29.3	29.7

DEPTH: 2270 TILT: 0 RANGE: 50.0 VOS: 5999

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	30.6	31.2	31.8	32.5	32.7	32.9	32.3	32.7
22.5	32.9	33.1	33.3	33.1	33.3	33.3	33.5	33.7
45.0	34.0	34.0	34.0	34.0	33.7	33.7	33.3	33.1
67.5	32.9	32.9	32.9	32.5	32.1	31.2	30.8	31.4
90.0	30.6	29.5	28.9	28.5	28.5	27.8	27.0	26.6
112.5	25.9	25.7	25.3	24.0	23.6	23.4	22.1	21.3
135.0	21.1	20.9	20.2	19.2	18.8	18.8	18.6	18.1
157.5	17.5	17.1	17.1	16.9	16.2	16.9	16.2	15.6
180.0	15.4	15.2	15.0	14.6	14.3	14.1	13.9	13.9
202.5	13.9	13.9	14.1	13.9	13.7	13.7	13.5	13.7
225.0	13.7	13.5	13.7	13.9	13.9	13.9	13.9	14.1
247.5	14.1	14.1	14.1	14.1	14.1	14.3	14.8	15.0
270.0	14.8	14.8	15.0	15.2	15.2	15.4	15.4	16.0
292.5	16.5	16.5	16.2	17.7	18.8	18.6	19.0	20.0
315.0	20.5	20.7	23.0	23.2	24.7	28.1	28.3	28.1
337.5	27.6	28.1	28.3	28.7	29.1	29.9	30.4	30.2

DEPTH: 2280 TILT: 0 RANGE: 75.0 VOS: 5999

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	30.7	30.7	31.3	32.0	32.6	32.9	32.9	33.5
22.5	33.9	34.2	33.9	33.9	34.2	34.8	35.1	35.1
45.0	35.1	34.5	34.2	34.5	34.2	34.2	33.9	33.5
67.5	33.5	33.2	33.2	32.9	32.6	32.0	32.0	31.3
90.0	30.7	30.4	29.1	28.5	27.2	25.6	25.6	24.7
112.5	24.0	23.7	23.4	22.2	21.2	20.6	20.6	20.6
135.0	20.9	20.3	19.3	19.3	19.0	18.7	18.7	18.7
157.5	18.4	18.0	17.1	16.8	16.1	15.8	15.8	15.8
180.0	14.9	14.6	14.6	14.9	14.6	14.6	14.6	14.6
202.5	14.9	14.6	14.2	14.2	14.9	14.6	14.2	14.6
225.0	14.6	14.6	14.2	14.2	14.2	14.2	14.6	14.6
247.5	14.6	14.9	14.9	15.2	15.2	15.2	15.2	16.5
270.0	16.5	16.5	16.8	17.1	17.7	17.7	17.7	17.7
292.5	18.4	18.0	17.7	18.0	19.9	21.2	21.5	21.5
315.0	21.8	23.7	24.4	25.6	26.3	26.6	26.3	26.9
337.5	27.2	27.8	29.4	29.4	29.1	29.4	29.7	30.1

DEPTH: 2290 TILT: 0 RANGE: 75.0 VOS: 5999

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	31.3	31.6	32.3	32.9	33.5	33.5	34.2	35.1
22.5	35.8	36.4	37.0	37.0	37.0	36.7	36.4	36.4
45.0	36.4	36.1	35.8	35.8	35.8	35.8	35.4	35.4
67.5	34.8	34.8	34.5	34.2	33.9	33.9	32.6	32.9
90.0	32.9	32.6	31.6	31.3	30.7	29.7	28.8	27.5
112.5	26.3	25.6	24.4	24.0	23.4	22.5	22.2	22.2
135.0	20.9	20.6	20.3	19.9	19.6	19.3	18.7	18.0
157.5	18.4	17.7	17.1	16.5	16.5	16.8	16.8	16.1
180.0	15.8	15.8	15.8	16.1	15.5	15.5	15.5	15.2
202.5	15.2	15.2	15.2	15.2	15.5	15.8	15.8	15.5
225.0	15.5	15.5	15.2	14.9	14.9	15.2	15.2	14.9
247.5	15.2	14.9	14.9	15.2	15.5	15.5	15.8	16.1
270.0	16.5	16.5	16.5	16.8	17.1	17.7	18.0	18.4
292.5	18.0	18.0	18.4	19.3	19.9	21.8	21.8	22.5
315.0	23.1	23.4	24.4	24.0	25.6	25.9	25.3	25.0
337.5	25.6	27.2	27.5	28.8	29.1	28.8	29.4	31.0

DEPTH: 2300 TILT: 0 RANGE: 75.0 VOS: 5999

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	31.6	32.9	33.5	34.2	34.5	35.1	35.4	35.4
22.5	35.8	35.8	36.1	35.8	35.8	36.4	36.7	37.0
45.0	36.7	36.4	35.8	35.8	35.8	35.8	35.8	35.8
67.5	35.4	35.1	34.8	34.2	33.9	33.5	33.2	33.2
90.0	32.6	31.0	30.7	30.4	29.4	29.1	28.5	27.8
112.5	27.5	27.5	26.6	25.9	22.8	21.5	20.9	20.9
135.0	20.9	20.6	19.9	19.9	19.0	19.3	18.4	18.4
157.5	18.7	17.7	17.7	17.7	17.1	17.4	17.1	16.8
180.0	16.8	16.5	16.5	16.5	15.5	15.2	15.2	15.5
202.5	15.2	14.9	15.2	14.9	14.9	15.2	15.2	14.9
225.0	14.9	15.2	15.2	15.2	15.2	15.2	14.9	14.9
247.5	15.2	15.8	16.1	16.1	16.1	15.5	15.8	15.8
270.0	15.8	16.1	16.8	16.8	17.4	17.4	17.7	18.4
292.5	19.3	19.3	19.6	19.6	20.6	20.9	21.5	21.8
315.0	23.4	24.7	24.7	25.0	25.3	25.9	26.3	26.9
337.5	27.5	27.8	27.8	28.2	28.8	29.7	30.1	30.7

DEPTH: 2310 TILT: 0 RANGE: 75.0 VOS: 5999

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	32.0	32.6	33.9	34.5	34.8	35.4	35.8	36.1
22.5	36.4	36.7	37.0	37.0	37.3	37.0	37.0	37.3
45.0	37.7	38.0	38.0	38.0	37.7	37.3	37.7	37.7
67.5	37.3	37.0	36.1	35.8	35.4	34.8	34.5	34.2
90.0	33.9	32.9	32.9	31.6	31.6	31.0	29.7	29.1
112.5	28.8	28.5	28.2	27.8	27.5	28.2	28.2	28.2
135.0	27.8	27.5	23.1	23.1	22.5	22.2	21.8	21.5
157.5	21.2	21.2	20.9	20.3	19.9	19.3	18.0	17.1
180.0	16.5	16.8	16.8	16.8	16.5	16.5	16.5	16.5
202.5	16.1	16.1	15.8	15.5	15.5	15.8	15.5	15.5
225.0	15.2	15.2	15.2	15.2	14.9	15.2	14.9	14.9
247.5	14.9	14.9	14.9	15.2	15.5	15.8	16.1	16.8
270.0	16.8	17.1	17.4	17.4	17.7	18.0	18.7	18.4
292.5	18.4	19.0	19.3	20.6	20.6	20.6	20.3	21.5
315.0	21.5	21.5	23.7	24.0	25.0	25.3	26.3	26.9
337.5	27.8	28.2	28.5	28.5	29.1	29.4	30.1	31.0

DEPTH: 2320 TILT: 0 RANGE: 75.0 VOS: 5999

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	31.6	32.6	33.5	33.5	34.2	34.5	34.8	34.8
22.5	34.5	36.1	35.7	36.1	36.7	37.0	38.0	38.0
45.0	38.3	38.6	38.6	38.9	38.9	38.3	38.3	38.0
67.5	38.0	37.6	38.0	37.6	38.3	39.8	39.8	39.5
90.0	38.6	36.1	34.8	34.5	34.2	33.8	32.6	31.6
112.5	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.0
135.0	31.0	24.0	23.4	23.4	23.4	23.1	22.8	22.8
157.5	22.5	22.1	21.8	21.2	21.2	20.6	20.2	20.2
180.0	20.2	20.2	20.2	20.2	19.9	19.9	19.6	19.6
202.5	19.6	19.6	19.3	19.0	19.0	19.0	18.7	18.3
225.0	18.3	18.0	17.7	17.7	17.7	17.7	17.4	17.7
247.5	17.7	18.0	18.3	18.3	18.3	18.3	18.3	18.0
270.0	18.0	18.3	18.7	18.7	19.0	19.3	19.6	19.6
292.5	19.9	20.2	20.6	20.9	22.1	22.8	23.4	23.7
315.0	24.0	24.4	24.7	25.6	25.9	26.2	27.2	27.5
337.5	27.5	27.8	28.5	28.1	28.5	29.4	29.7	30.4

DEPTH: 2330 TILT: 0 RANGE: 75.0 VOS: 6000

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	34.5	35.1	35.1	36.1	37.0	38.6	39.9	40.2
22.5	40.5	41.1	41.4	41.8	41.8	41.4	41.4	41.4
45.0	41.1	40.8	40.8	40.8	40.5	40.8	40.5	40.5
67.5	40.5	40.5	40.8	40.8	41.1	41.1	39.9	39.5
90.0	38.0	35.1	33.5	33.2	31.6	30.4	30.0	28.8
112.5	27.8	26.9	26.9	26.3	25.9	25.3	25.3	24.7
135.0	24.7	23.4	23.1	22.5	21.8	21.8	21.5	21.2
157.5	20.2	20.2	19.6	19.3	18.7	18.3	18.3	17.7
180.0	17.7	16.8	16.8	16.4	16.8	16.4	16.4	16.4
202.5	16.1	16.1	16.1	16.1	16.1	16.1	16.4	16.4
225.0	16.1	16.1	15.8	15.8	16.4	16.4	16.4	16.4
247.5	16.8	17.1	17.4	17.4	17.7	17.7	18.0	18.0
270.0	18.0	18.0	18.7	18.0	18.7	19.3	19.3	19.3
292.5	19.9	20.6	21.2	22.1	22.1	23.1	23.4	23.7
315.0	25.0	25.3	25.6	26.3	25.6	25.6	26.3	27.2
337.5	27.2	27.2	27.5	28.8	29.4	29.7	31.6	33.2

DEPTH: 2340 TILT: 0 RANGE: 75.0 VOS: 6000

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	36.1	38.3	39.2	39.9	39.9	39.9	40.5	40.8
22.5	41.1	41.8	41.8	42.1	42.7	42.7	43.0	42.7
45.0	42.7	42.7	42.7	42.7	42.7	42.1	41.4	40.8
67.5	40.2	39.9	39.2	38.3	38.3	38.0	37.3	37.0
90.0	36.7	36.7	36.4	35.1	34.8	34.2	33.2	31.6
112.5	31.3	31.0	30.7	30.4	29.7	29.4	27.8	26.6
135.0	25.6	25.3	25.0	23.1	22.8	22.8	22.5	22.8
157.5	22.5	22.5	21.2	20.6	20.2	19.6	19.6	19.0
180.0	18.7	18.3	18.0	17.7	17.7	17.4	17.1	17.1
202.5	17.1	17.1	17.1	16.8	16.4	16.4	16.4	16.4
225.0	16.4	16.8	16.4	16.1	16.1	16.1	16.1	16.4
247.5	16.4	16.4	16.4	16.4	16.8	16.8	16.4	16.8
270.0	17.1	17.7	17.4	17.7	18.7	18.3	19.0	19.9
292.5	20.2	19.9	19.9	20.2	21.2	21.5	23.1	24.4
315.0	24.7	25.3	25.9	25.9	26.3	26.6	26.6	26.9
337.5	27.5	27.8	28.2	29.1	30.4	31.6	33.5	34.8

DEPTH: 2350 TILT: 0 RANGE: 75.0 VOS: 6000

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	36.7	37.3	37.6	38.3	38.9	39.5	39.9	40.2
22.5	40.8	41.4	41.4	41.8	41.8	41.8	41.4	41.8
45.0	42.1	42.1	41.8	41.8	41.4	40.8	40.8	40.8
67.5	40.8	40.2	39.2	39.2	38.9	38.9	38.3	37.6
90.0	37.3	37.0	37.6	37.0	36.1	36.1	33.5	33.2
112.5	32.6	31.9	31.3	30.7	30.0	28.8	27.8	27.5
135.0	26.9	26.6	25.9	24.7	23.7	22.5	22.1	22.1
157.5	21.5	21.8	21.2	20.6	19.9	19.9	19.9	19.6
180.0	19.3	19.3	19.3	19.3	19.0	18.7	18.3	18.3
202.5	18.0	17.7	17.4	17.4	17.1	17.1	17.1	17.1
225.0	16.8	16.8	17.1	17.1	17.1	17.1	16.8	17.1
247.5	17.1	17.1	17.1	17.4	17.1	17.1	17.4	17.4
270.0	17.7	18.0	18.0	17.7	18.3	18.7	19.0	19.6
292.5	19.9	20.2	20.6	21.5	21.8	22.5	23.4	23.7
315.0	23.7	23.7	25.3	25.9	26.3	26.3	26.9	27.2
337.5	28.2	29.1	29.7	30.4	31.9	33.5	34.8	35.7

DEPTH: 2360 TILT: 0 RANGE: 75.0 VOS: 6000

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	35.7	36.1	38.0	39.9	40.5	40.8	42.4	42.7
22.5	43.0	43.0	43.0	43.0	43.7	44.6	45.5	45.5
45.0	45.2	44.9	43.7	43.0	42.4	42.1	41.8	41.8
67.5	41.8	41.4	40.8	40.8	40.5	40.2	39.2	38.6
90.0	38.6	38.3	38.3	37.0	36.4	35.7	34.8	34.2
112.5	32.9	31.6	31.3	30.7	30.4	29.7	28.8	28.2
135.0	27.5	26.6	25.6	25.3	24.7	23.7	23.4	23.1
157.5	23.1	22.5	22.1	21.8	21.5	21.5	21.5	21.5
180.0	20.6	20.2	19.9	19.9	19.3	19.3	19.3	19.3
202.5	19.0	18.7	18.7	18.7	18.3	18.0	17.4	17.7
225.0	17.4	17.4	17.4	17.1	17.1	17.4	17.4	17.4
247.5	17.4	17.4	18.0	17.7	17.7	18.0	18.3	18.7
270.0	18.7	18.7	18.7	19.0	19.3	19.6	20.2	21.2
292.5	21.5	22.1	22.5	22.8	23.4	24.0	24.7	25.0
315.0	25.6	25.6	25.9	26.6	26.9	27.8	28.8	29.1
337.5	31.0	31.9	33.5	33.2	33.2	33.5	34.5	35.4

DEPTH: 2370 TILT: 0 RANGE: 75.0 VOS: 6000

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	35.7	37.0	41.4	41.8	42.4	43.0	43.0	43.0
22.5	43.0	43.0	43.0	43.7	43.7	44.0	44.0	44.3
45.0	44.3	44.3	44.3	44.0	43.3	43.3	43.3	43.0
67.5	43.0	43.0	42.7	42.4	41.4	41.1	41.1	40.5
90.0	39.5	39.2	38.9	38.3	37.6	37.3	36.1	35.7
112.5	34.5	34.2	33.5	33.2	32.3	31.9	31.6	31.3
135.0	30.4	29.4	28.5	28.2	26.6	26.6	25.9	25.0
157.5	24.7	24.4	24.0	22.8	22.5	22.1	21.8	21.5
180.0	21.2	20.9	20.2	19.9	19.6	19.0	19.0	19.3
202.5	19.0	18.7	18.3	18.0	17.7	17.7	17.7	17.7
225.0	17.7	17.7	17.7	17.4	17.4	17.4	17.7	18.0
247.5	18.0	18.0	18.3	18.0	18.3	18.7	18.7	19.0
270.0	19.0	19.6	20.6	20.9	21.2	21.8	22.1	22.5
292.5	22.8	22.8	23.4	23.7	24.0	24.4	24.4	24.7
315.0	25.3	25.6	25.9	26.6	26.9	27.5	27.5	28.8
337.5	30.0	32.3	32.6	33.8	34.2	34.8	35.4	35.7

DEPTH: 2380 TILT: 0 RANGE: 75.0 VOS: 6002

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	35.1	35.4	36.4	37.0	38.0	38.9	39.9	40.8
22.5	42.1	42.4	42.7	42.7	42.7	42.7	42.7	43.0
45.0	43.3	43.3	43.7	43.7	43.3	43.3	43.3	43.3
67.5	43.7	43.7	43.3	43.0	43.0	42.7	42.4	42.1
90.0	42.1	41.8	41.5	41.5	40.8	39.9	39.9	38.9
112.5	38.3	37.7	37.3	36.7	35.8	35.1	33.9	33.2
135.0	32.3	31.6	30.7	30.1	29.7	29.7	28.5	27.8
157.5	27.2	26.9	26.6	26.6	26.3	25.6	24.7	24.0
180.0	23.4	22.8	21.8	21.8	21.8	21.2	20.9	20.6
202.5	20.3	19.6	19.6	19.6	19.6	19.6	19.9	19.9
225.0	19.6	19.3	19.3	19.3	19.3	19.3	19.0	19.0
247.5	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
270.0	19.3	19.6	19.6	19.9	19.9	19.9	20.6	20.6
292.5	20.6	20.9	21.5	21.5	21.8	22.5	22.8	23.7
315.0	24.0	25.0	25.3	25.9	26.3	27.5	28.2	28.8
337.5	28.5	29.1	29.7	31.3	32.6	33.2	33.2	33.9

DEPTH: 2390 TILT: 0 RANGE: 75.0 VOS: 6002

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	37.7	38.3	39.6	41.5	42.7	44.0	45.2	45.9
22.5	45.9	45.9	45.6	45.2	44.9	44.6	44.6	44.6
45.0	44.6	44.6	44.3	44.3	44.3	44.0	44.3	44.3
67.5	44.3	44.6	44.9	44.6	44.3	44.3	44.0	43.7
90.0	43.0	42.7	42.1	41.8	41.5	41.1	40.2	38.6
112.5	36.7	36.7	36.4	36.4	35.8	35.1	35.1	35.1
135.0	35.1	34.8	34.2	32.6	31.0	30.1	29.1	28.2
157.5	27.8	27.5	26.6	25.6	25.3	25.3	24.7	24.0
180.0	23.1	22.5	22.5	22.1	21.8	21.5	21.2	20.9
202.5	20.9	20.9	20.9	20.6	20.3	20.3	19.9	19.9
225.0	19.9	19.9	19.6	19.6	19.6	19.6	19.6	19.9
247.5	19.9	19.9	19.9	19.9	19.9	19.9	20.3	20.9
270.0	20.6	20.3	20.6	20.9	21.2	21.2	21.2	22.1
292.5	22.8	23.1	23.1	23.1	23.4	23.7	24.0	24.7
315.0	25.6	25.3	25.6	26.3	27.2	27.5	27.5	28.2
337.5	28.5	29.4	30.4	33.2	34.8	35.1	35.8	36.1

DEPTH: 2400 TILT: 0 RANGE: 75.0 VOS: 6002

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	37.0	37.7	38.6	39.2	43.0	44.9	45.6	45.6
22.5	45.2	44.6	44.9	45.2	45.2	45.6	45.9	45.9
45.0	46.5	47.1	47.8	48.4	49.0	49.0	49.4	50.0
67.5	50.3	50.6	50.3	50.9	50.6	50.3	49.0	46.2
90.0	44.6	42.7	41.5	41.1	39.9	39.2	39.2	39.6
112.5	39.2	38.3	37.3	37.3	36.7	37.0	37.3	37.0
135.0	34.2	33.5	32.9	32.0	31.6	30.7	30.1	29.4
157.5	29.1	28.2	27.2	26.3	25.9	25.6	25.6	25.0
180.0	24.7	24.4	23.1	22.5	22.5	22.5	22.1	21.8
202.5	21.5	21.5	21.5	21.2	21.2	21.2	20.9	20.9
225.0	20.9	20.6	20.3	20.6	20.3	20.3	19.9	19.9
247.5	19.9	19.9	20.3	20.6	20.6	21.2	20.6	20.6
270.0	21.2	21.8	21.8	21.8	22.1	22.5	22.8	22.8
292.5	23.4	23.7	24.0	24.0	24.4	24.4	24.7	25.0
315.0	25.3	25.6	26.3	27.5	27.8	31.0	31.3	32.0
337.5	32.3	32.6	32.6	33.2	33.9	33.9	34.5	35.8

DEPTH: 2410 TILT: 0 RANGE: 75.0 VOS: 6002

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	40.5	41.1	41.5	42.4	42.7	43.0	43.7	44.3
22.5	45.2	45.2	45.2	45.2	46.2	46.8	47.5	49.0
45.0	49.0	49.0	49.4	49.4	49.4	49.7	49.7	49.7
67.5	50.3	50.3	50.6	50.6	50.3	50.0	50.0	49.4
90.0	48.7	47.8	47.1	46.2	44.3	43.7	41.8	41.5
112.5	41.1	40.8	39.9	39.2	38.9	38.3	37.3	36.4
135.0	36.4	35.4	34.5	33.9	33.5	32.6	32.0	31.0
157.5	30.1	29.4	29.4	29.1	28.5	27.8	27.2	26.6
180.0	26.3	26.3	25.9	24.0	23.7	23.4	23.1	23.1
202.5	22.5	22.1	21.5	21.5	21.8	21.2	21.2	21.5
225.0	21.5	21.2	21.2	20.9	20.6	20.6	20.6	20.6
247.5	20.3	20.3	20.6	20.9	20.9	20.9	20.9	20.9
270.0	21.2	21.2	21.2	21.2	21.2	21.5	21.5	22.1
292.5	22.5	23.1	24.0	24.0	24.0	24.7	24.7	25.0
315.0	25.9	26.6	26.9	28.2	28.2	29.1	29.4	29.7
337.5	31.3	32.9	34.2	35.1	36.4	37.3	38.9	39.9

DEPTH: 2420 TILT: 0 RANGE: 75.0 VOS: 6002

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	40.8	42.1	43.0	43.3	44.3	44.3	44.6	44.9
22.5	45.6	45.9	46.5	46.8	47.5	47.8	48.1	48.4
45.0	49.4	50.0	50.0	50.3	50.9	50.6	50.6	50.9
67.5	50.9	50.3	49.4	48.4	47.8	46.2	45.9	45.6
90.0	45.2	44.9	44.3	43.0	42.7	42.7	42.4	41.5
112.5	40.8	40.5	39.9	39.6	38.9	38.6	38.0	37.3
135.0	36.1	35.1	32.9	32.6	32.0	31.3	30.4	29.7
157.5	29.4	28.5	28.5	28.2	27.5	26.9	26.3	25.9
180.0	25.6	25.3	25.3	24.7	24.7	23.4	22.8	22.8
202.5	22.5	22.5	22.1	22.1	21.8	21.5	21.5	21.5
225.0	21.5	21.2	21.2	20.9	21.2	21.2	20.9	20.9
247.5	20.9	21.2	21.2	21.5	21.5	21.5	21.5	21.8
270.0	22.1	22.5	22.5	22.8	22.8	23.1	23.4	24.0
292.5	24.7	25.0	25.0	25.3	26.6	27.2	27.5	27.5
315.0	27.5	28.2	28.5	29.1	29.7	30.4	32.3	33.5
337.5	34.5	36.4	36.7	37.3	37.7	38.3	38.9	39.9

DEPTH: 2430 TILT: 0 RANGE: 100.0 VOS: 6002

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	41.3	42.2	43.9	44.7	45.1	45.6	46.0	46.4
22.5	46.4	46.4	46.8	48.9	50.2	51.5	51.5	51.0
45.0	50.2	50.2	49.8	49.8	49.8	49.4	48.9	48.5
67.5	48.5	48.1	48.1	48.1	47.7	47.2	46.4	46.0
90.0	45.6	45.1	43.9	43.4	43.0	42.2	42.2	42.2
112.5	40.9	40.5	39.7	39.7	38.8	38.0	37.5	36.7
135.0	35.4	34.2	33.7	33.7	33.3	32.5	31.2	30.4
157.5	29.5	29.1	28.3	27.8	27.0	26.6	26.2	25.7
180.0	25.3	24.5	24.9	24.5	24.5	23.6	23.2	23.2
202.5	23.2	22.8	22.8	22.4	22.4	22.4	22.4	21.9
225.0	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9
247.5	21.9	21.9	22.4	22.4	22.4	22.8	22.8	22.8
270.0	23.2	23.2	23.2	23.2	23.2	24.0	24.5	24.9
292.5	25.3	25.7	26.2	26.6	27.8	28.7	29.5	30.4
315.0	31.2	32.5	32.9	33.3	34.2	34.6	34.6	35.4
337.5	35.0	35.4	35.4	36.3	36.7	38.4	38.8	40.1

DEPTH: 2440 TILT: 0 RANGE: 100.0 VOS: 6004

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	40.5	40.5	41.3	42.2	43.4	45.1	45.6	46.0
22.5	46.0	46.8	47.2	48.5	49.8	49.8	48.9	48.9
45.0	48.9	49.3	50.6	50.2	51.0	51.0	50.6	49.3
67.5	48.9	48.5	48.5	48.9	48.9	49.3	48.9	48.9
90.0	48.5	48.1	47.2	45.6	45.1	44.3	43.0	43.0
112.5	42.2	41.8	41.3	41.3	39.2	38.4	38.0	37.1
135.0	36.7	35.9	36.3	35.0	34.2	32.9	32.5	32.5
157.5	31.6	30.4	29.1	29.1	29.5	27.4	27.0	25.3
180.0	24.9	24.9	25.3	24.9	24.9	25.3	24.9	24.5
202.5	24.5	24.0	24.0	23.6	23.6	23.2	23.2	22.8
225.0	22.8	22.8	22.4	22.4	22.4	22.4	22.4	22.8
247.5	22.8	22.8	22.8	22.8	22.4	22.4	23.2	23.2
270.0	23.6	23.6	23.6	23.6	24.9	24.5	24.5	24.9
292.5	24.9	25.7	27.0	28.3	28.3	28.3	26.6	29.9
315.0	29.9	30.8	30.8	31.6	32.5	33.7	35.0	35.4
337.5	35.9	35.9	36.3	38.0	38.4	38.4	39.2	40.5

DEPTH: 2450 TILT: 0 RANGE: 100.0 VOS: 6004

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	43.9	43.9	45.1	45.1	46.0	46.4	47.2	47.2
22.5	47.7	48.5	48.9	49.3	49.3	49.8	50.2	50.6
45.0	51.0	51.0	51.5	51.5	52.3	52.7	53.1	52.7
67.5	52.3	51.5	51.0	50.6	50.6	50.6	50.2	49.3
90.0	48.9	48.9	48.5	48.1	48.1	47.7	47.2	46.0
112.5	43.9	42.6	41.3	40.9	39.6	39.2	38.8	38.8
135.0	38.4	37.1	36.7	36.3	36.3	35.0	33.7	32.9
157.5	32.1	31.2	30.4	30.4	30.4	29.9	29.5	28.7
180.0	28.7	28.7	28.3	27.8	27.8	27.4	27.4	26.6
202.5	26.6	26.6	26.6	25.7	25.7	24.5	24.5	24.5
225.0	24.5	24.0	24.0	24.0	24.0	24.0	24.0	24.0
247.5	23.6	23.6	23.6	23.6	23.6	24.0	24.0	24.0
270.0	24.0	24.5	24.5	24.9	25.3	25.7	26.2	26.6
292.5	27.0	27.4	28.3	28.7	29.5	29.9	31.2	32.5
315.0	33.3	33.7	33.7	33.7	34.2	35.4	35.9	36.7
337.5	37.1	37.1	38.0	39.2	41.8	42.2	42.6	42.6

DEPTH: 2460 TILT: 0 RANGE: 100.0 VOS: 6004

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	47.2	47.2	49.8	50.6	51.9	54.0	54.4	54.8
22.5	53.6	52.7	52.3	52.7	53.1	53.1	52.7	52.3
45.0	52.7	52.7	52.7	53.1	53.1	53.1	54.0	54.8
67.5	54.8	54.0	52.7	52.3	51.9	51.0	51.0	50.6
90.0	49.8	48.9	47.7	46.0	45.6	46.8	46.4	45.6
112.5	44.3	43.4	42.2	41.8	40.9	40.5	40.9	39.2
135.0	38.4	38.4	36.3	35.9	35.0	34.2	32.1	31.6
157.5	31.2	30.8	30.4	30.8	30.8	30.4	29.9	29.9
180.0	29.5	29.5	28.7	28.3	27.8	27.4	27.0	26.6
202.5	26.2	26.2	26.2	26.2	25.7	25.3	25.3	25.3
225.0	25.3	24.9	24.9	24.9	24.9	24.9	24.9	24.9
247.5	24.9	24.5	24.5	24.5	24.5	24.9	24.9	25.3
270.0	26.2	26.2	26.6	27.4	27.8	28.3	28.7	28.3
292.5	29.1	29.5	29.9	30.8	31.2	31.6	32.1	32.5
315.0	32.5	32.9	33.3	34.2	34.2	34.6	35.9	37.5
337.5	41.8	46.4	46.4	47.2	46.8	46.8	47.2	47.2

DEPTH: 2470 TILT: 0 RANGE: 100.0 VOS: 6004

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	51.0	50.6	51.0	50.6	50.2	51.5	51.5	52.7
22.5	54.0	53.6	53.1	54.0	54.4	54.8	54.4	54.4
45.0	53.6	53.1	53.1	53.1	53.1	53.1	53.1	54.0
67.5	59.5	59.5	59.0	58.6	57.8	56.9	56.1	56.1
90.0	55.7	55.7	55.3	55.3	55.3	55.3	55.3	54.8
112.5	54.8	53.6	52.7	51.9	51.5	51.5	51.5	51.5
135.0	50.6	49.3	46.4	44.3	42.6	41.8	41.8	41.3
157.5	40.9	40.1	39.6	40.1	40.1	38.0	37.5	36.7
180.0	35.9	35.0	34.6	34.2	32.1	31.6	31.6	30.8
202.5	29.9	29.5	29.5	29.9	29.9	30.4	30.4	30.4
225.0	30.4	29.9	29.5	29.1	28.3	27.8	27.8	27.8
247.5	27.4	27.4	27.0	26.2	26.2	26.2	26.6	27.0
270.0	27.4	27.0	27.0	27.0	27.4	27.8	28.7	29.5
292.5	30.4	30.8	31.2	32.9	34.2	34.2	34.2	34.2
315.0	33.7	35.0	35.9	37.1	37.1	37.5	38.0	39.2
337.5	39.6	40.1	40.5	42.6	43.4	48.5	48.9	50.6

DEPTH: 2480 TILT: 0 RANGE: 100.0 VOS: 6004

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	63.7	63.7	64.1	64.5	67.1	67.9	68.3	68.8
22.5	68.8	68.3	66.6	65.8	65.8	65.8	64.5	64.5
45.0	64.5	64.5	65.4	72.1	71.7	71.7	71.3	69.2
67.5	65.8	63.7	63.7	63.3	63.3	62.4	62.0	61.2
90.0	61.2	59.9	59.0	57.8	56.5	55.7	54.4	53.6
112.5	52.7	52.7	52.7	52.7	52.7	52.3	51.5	50.6
135.0	48.1	47.2	46.0	45.1	42.6	42.2	42.2	42.6
157.5	42.6	42.6	42.2	41.8	40.9	40.1	38.8	38.0
180.0	37.1	37.1	35.9	35.4	35.4	35.0	34.6	34.2
202.5	34.2	33.7	33.7	34.2	34.2	34.2	34.2	34.2
225.0	33.7	33.3	32.9	32.9	32.9	32.9	32.9	33.3
247.5	33.7	33.3	33.7	33.7	34.2	34.6	34.6	35.0
270.0	35.4	36.3	36.7	37.1	37.1	37.5	37.5	38.4
292.5	39.6	40.5	40.9	40.9	40.9	41.8	42.6	42.6
315.0	42.6	43.0	43.4	43.9	44.7	45.1	45.6	46.4
337.5	48.5	53.1	56.1	57.8	60.3	60.3	60.7	63.3

DEPTH: 2490 TILT: 0 RANGE: 100.0 VOS: 6004

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	65.8	65.8	67.9	68.3	68.3	66.6	66.6	66.2
22.5	65.8	65.8	66.2	66.2	66.6	67.1	67.1	68.8
45.0	71.3	71.3	70.4	68.8	67.5	67.1	66.6	66.6
67.5	66.6	65.4	65.0	63.7	63.3	62.8	61.2	60.7
90.0	60.3	59.9	59.0	58.6	58.2	57.4	56.9	55.7
112.5	55.3	54.0	52.7	51.0	50.6	50.6	50.6	50.2
135.0	49.8	49.3	49.3	48.9	48.9	48.1	46.8	43.9
157.5	43.4	43.0	43.0	42.6	42.2	42.2	41.8	41.3
180.0	40.9	40.5	40.1	40.1	39.6	38.8	38.4	38.4
202.5	38.8	38.8	38.8	38.4	38.0	37.5	37.1	36.7
225.0	37.1	37.5	38.0	38.0	38.0	38.0	38.0	38.4
247.5	38.4	38.4	39.2	39.6	40.5	41.3	41.8	42.2
270.0	42.6	42.6	42.6	42.6	43.0	43.0	43.0	43.4
292.5	43.9	43.9	44.3	45.6	46.0	46.4	48.9	49.3
315.0	50.6	52.7	54.4	56.1	57.8	59.5	59.9	60.3
337.5	60.7	62.0	62.4	63.7	63.7	64.1	64.5	65.8

DEPTH: 2500 TILT: 0 RANGE: 100.0 VOS: 6005

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	65.0	65.0	65.0	65.0	65.0	65.0	65.4	65.4
22.5	66.2	67.5	69.2	69.6	70.9	70.9	70.9	70.9
45.0	71.3	70.4	70.0	70.0	69.2	69.2	68.8	67.9
67.5	67.9	67.9	67.5	67.1	66.7	66.7	64.1	61.6
90.0	60.3	59.9	59.5	59.1	58.6	58.6	57.8	56.5
112.5	55.7	54.0	53.2	52.3	51.9	51.5	50.6	50.2
135.0	49.8	48.1	47.7	46.8	46.8	46.4	46.0	45.6
157.5	45.1	45.1	45.1	44.7	43.9	43.5	42.6	42.6
180.0	42.6	41.3	40.5	40.1	39.7	39.2	39.2	38.8
202.5	38.8	39.2	38.8	38.8	38.8	38.8	38.8	38.8
225.0	39.2	38.8	38.8	39.2	39.7	39.7	40.5	40.5
247.5	40.9	40.9	40.9	40.9	41.3	42.2	42.2	42.6
270.0	43.0	43.0	43.5	43.9	44.3	45.1	45.1	46.8
292.5	48.1	50.2	52.3	53.2	57.8	59.5	59.1	59.1
315.0	59.1	59.9	60.3	60.3	60.7	60.7	60.3	60.7
337.5	60.7	61.2	62.4	62.9	64.1	65.0	65.0	65.0

DEPTH: 2510 TILT: 0 RANGE: 100.0 VOS: 6005

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	65.0	65.4	65.8	66.2	66.7	67.1	67.5	67.9
22.5	67.9	68.3	69.2	69.6	71.7	73.0	73.4	74.7
45.0	74.7	73.8	72.1	71.7	71.3	71.3	71.7	70.9
67.5	71.3	70.4	70.4	70.4	70.4	69.2	68.3	67.9
90.0	67.1	65.8	63.3	62.4	61.2	59.9	59.1	59.1
112.5	58.6	57.4	56.9	56.5	54.4	54.0	53.2	52.7
135.0	52.3	51.9	51.5	50.6	50.6	50.6	48.5	48.1
157.5	47.7	46.0	45.6	45.1	45.1	44.7	44.3	43.9
180.0	43.0	42.6	41.8	41.8	41.3	40.9	40.5	40.1
202.5	40.1	40.1	39.7	39.7	39.2	39.2	39.2	39.2
225.0	39.2	39.2	39.2	39.2	39.2	39.2	39.7	40.1
247.5	40.1	40.5	40.9	41.3	41.3	41.3	41.8	41.8
270.0	41.8	42.2	42.6	43.0	45.1	46.8	48.1	50.2
292.5	52.3	54.4	55.7	56.9	57.8	58.2	58.6	59.1
315.0	59.1	59.5	59.9	59.9	59.5	59.5	59.5	59.9
337.5	59.5	60.3	60.3	61.2	61.6	62.0	62.9	64.1

DEPTH: 2520 TILT: 0 RANGE: 100.0 VOS: 6005

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	67.1	67.9	67.9	68.3	68.8	69.2	70.0	70.0
22.5	70.4	71.7	72.1	73.4	74.2	74.7	75.1	75.9
45.0	75.9	75.9	76.4	76.4	75.5	74.2	73.8	73.4
67.5	73.0	72.1	72.1	72.1	72.1	72.1	70.9	70.4
90.0	70.0	69.6	68.3	67.1	65.0	63.7	62.4	61.2
112.5	59.5	58.6	57.8	57.8	57.8	57.4	56.9	56.5
135.0	55.3	54.8	53.2	51.5	50.2	50.2	49.8	48.9
157.5	48.5	47.2	46.4	45.6	45.1	45.1	44.7	44.3
180.0	43.5	43.5	43.9	43.5	43.0	42.6	42.2	42.2
202.5	41.3	41.3	41.3	41.3	41.3	40.9	40.9	40.5
225.0	40.5	40.5	40.5	40.5	40.5	40.5	40.9	40.9
247.5	40.9	41.3	41.8	41.8	41.8	42.2	42.6	43.0
270.0	43.0	43.9	45.1	46.0	47.2	48.1	48.9	49.4
292.5	49.8	49.8	50.6	52.7	54.8	56.5	58.2	58.2
315.0	58.2	58.6	58.2	58.6	58.6	59.1	59.9	60.3
337.5	60.7	61.2	61.2	62.4	63.3	64.1	65.8	66.7

DEPTH: 2530 TILT: 0 RANGE: 100.0 VOS: 6005

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	70.0	70.0	70.4	70.4	70.9	70.9	71.3	71.3
22.5	74.2	76.8	76.8	76.8	77.2	76.8	75.9	75.5
45.0	75.5	75.1	75.1	74.7	74.7	74.2	73.4	73.4
67.5	73.4	73.4	73.4	73.4	73.0	73.0	72.6	70.4
90.0	69.2	66.7	65.4	64.1	63.3	62.4	61.6	61.2
112.5	60.3	60.3	60.3	59.1	58.6	56.9	56.5	55.7
135.0	54.8	53.6	53.2	51.5	50.6	50.2	48.9	48.5
157.5	48.5	48.1	46.8	46.8	46.0	45.1	44.7	43.9
180.0	43.5	43.0	43.0	42.6	42.2	42.2	42.2	42.2
202.5	42.2	42.2	41.8	41.8	41.8	41.3	41.3	41.3
225.0	40.9	41.3	41.3	41.3	41.8	41.8	41.8	42.2
247.5	42.6	43.0	43.0	43.0	43.5	43.9	44.3	45.1
270.0	45.6	45.6	46.0	46.4	47.7	48.5	49.8	51.0
292.5	51.9	53.6	54.8	55.7	56.9	56.9	56.9	57.4
315.0	58.2	58.6	58.2	59.1	59.5	59.9	60.3	60.7
337.5	62.0	62.9	64.5	66.7	67.1	67.9	68.8	69.6

DEPTH: 2540 TILT: 0 RANGE: 100.0 VOS: 6005

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	74.2	74.2	74.2	74.2	74.2	75.1	75.5	75.5
22.5	76.4	76.4	77.2	77.6	78.0	78.0	78.0	78.0
45.0	78.0	77.6	76.8	75.9	75.9	75.5	75.5	75.5
67.5	75.5	75.9	75.1	75.1	75.1	74.7	74.7	73.8
90.0	73.8	73.4	73.4	71.7	70.4	68.3	67.9	66.2
112.5	65.8	65.0	65.0	65.0	65.0	56.9	56.5	56.1
135.0	54.8	54.0	53.6	52.7	51.9	51.9	51.5	51.0
157.5	51.0	51.0	50.2	49.8	48.9	47.7	47.2	47.2
180.0	46.4	46.0	45.1	45.1	44.7	44.7	43.9	43.0
202.5	43.0	43.0	42.6	42.2	42.2	41.8	41.8	41.8
225.0	41.8	41.8	42.2	42.2	42.2	42.2	42.6	42.6
247.5	43.0	43.0	43.5	43.9	44.7	45.1	45.6	46.0
270.0	46.4	46.0	47.2	47.7	48.5	49.4	51.5	51.9
292.5	52.3	52.3	53.2	53.6	54.4	55.3	56.1	56.5
315.0	57.4	57.8	58.6	59.5	60.3	60.7	61.6	62.4
337.5	63.7	65.8	67.9	70.4	71.7	73.0	73.4	74.2

DEPTH: 2550 TILT: 0 RANGE: 99.9 VOS: 6005

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	70.4	70.8	70.8	70.8	71.3	72.9	75.1	76.7
22.5	78.4	78.4	78.9	79.3	80.1	80.1	80.1	79.7
45.0	79.3	79.3	78.9	78.4	78.0	78.4	78.4	78.4
67.5	78.0	78.0	78.0	77.2	76.7	76.7	76.7	75.9
90.0	74.6	71.7	70.0	70.0	70.0	70.4	67.5	66.6
112.5	66.2	65.8	65.8	65.8	65.4	65.8	55.7	55.7
135.0	54.4	54.0	53.1	53.1	52.7	52.3	52.3	51.0
157.5	51.0	51.0	50.6	50.2	49.8	49.3	49.8	48.5
180.0	48.1	47.6	47.6	47.6	47.2	46.8	45.1	44.7
202.5	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4
225.0	43.4	43.0	43.0	43.4	43.4	43.4	43.9	44.3
247.5	44.3	44.3	44.3	44.3	44.3	44.3	44.7	45.1
270.0	46.0	46.4	47.2	48.9	49.8	51.4	52.3	52.7
292.5	53.6	53.6	54.0	54.4	54.8	59.9	60.3	59.9
315.0	59.9	60.3	60.7	61.1	62.0	62.4	63.2	64.5
337.5	65.4	65.8	66.6	67.5	67.9	68.3	69.2	69.6

DEPTH: 2560 TILT: 0 RANGE: 150.0 VOS: 6007

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	67.1	67.7	67.7	70.9	78.5	79.1	79.1	79.7
22.5	80.4	80.4	79.1	79.1	79.1	79.1	79.1	79.7
45.0	79.7	81.6	82.3	83.5	82.9	81.6	80.4	80.4
67.5	80.4	79.7	80.4	79.7	79.7	79.7	79.7	78.5
90.0	79.7	81.0	81.0	80.4	80.4	79.1	78.5	77.8
112.5	77.2	75.9	74.7	72.8	71.5	69.0	69.0	67.7
135.0	67.1	63.9	62.6	57.0	57.0	56.3	55.7	55.7
157.5	55.7	55.1	54.4	53.8	51.9	51.3	50.6	50.6
180.0	50.6	50.0	49.4	48.1	48.1	48.1	46.8	46.2
202.5	46.2	46.2	46.8	46.2	46.2	46.2	45.6	45.6
225.0	45.6	45.6	44.9	44.9	44.9	44.3	44.9	44.9
247.5	44.9	44.9	44.9	44.9	45.6	45.6	45.6	46.8
270.0	47.5	48.1	48.1	47.5	47.5	48.1	48.7	49.4
292.5	50.0	51.3	51.9	52.5	53.8	53.8	54.4	55.1
315.0	57.0	57.0	58.2	60.1	61.4	61.4	62.0	62.0
337.5	62.6	63.3	63.3	63.9	64.5	65.8	66.4	67.1

DEPTH: 2570 TILT: 0 RANGE: 150.0 VOS: 6007

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	72.1	72.8	74.0	74.7	74.7	77.2	78.5	81.0
22.5	82.3	82.9	81.6	81.6	81.6	82.9	82.9	85.4
45.0	86.1	88.0	91.8	91.8	90.5	88.0	84.8	83.5
67.5	83.5	83.5	82.9	82.3	81.6	81.6	81.6	81.6
90.0	82.9	84.2	84.8	84.2	83.5	81.6	78.5	77.2
112.5	75.3	74.7	74.0	72.8	73.4	72.1	70.9	69.0
135.0	69.0	66.4	64.5	64.5	64.5	63.9	63.9	63.3
157.5	62.0	61.4	60.1	57.6	57.0	55.1	54.4	53.8
180.0	53.2	52.5	51.9	51.9	51.3	50.6	50.0	50.0
202.5	49.4	48.7	48.7	48.7	48.7	48.1	48.7	48.7
225.0	48.1	47.5	47.5	47.5	46.8	46.8	46.8	46.8
247.5	46.8	46.8	47.5	46.8	47.5	47.5	48.1	48.1
270.0	48.7	48.7	48.7	48.7	49.4	49.4	50.0	50.0
292.5	50.6	50.6	50.6	50.6	51.9	52.5	55.1	56.3
315.0	60.7	61.4	61.4	61.4	61.4	62.0	62.6	62.6
337.5	63.3	63.9	65.2	65.8	67.1	68.3	70.2	70.9

DEPTH: 2580 TILT: 0 RANGE: 150.0 VOS: 6007

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	74.7	75.9	76.6	78.5	79.1	79.7	80.4	81.0
22.5	81.0	81.6	82.3	84.2	84.8	85.4	89.9	94.3
45.0	96.8	98.1	101.9	103.1	103.1	101.2	97.5	93.7
67.5	89.2	88.0	87.3	87.3	86.7	86.1	86.1	84.8
90.0	84.8	86.1	86.7	88.6	88.0	86.7	84.8	81.6
112.5	79.7	76.6	74.7	74.0	73.4	72.8	72.8	72.1
135.0	71.5	70.9	70.2	70.2	69.6	69.0	68.3	67.7
157.5	67.1	66.4	65.8	65.2	64.5	62.6	60.7	58.9
180.0	57.0	55.7	55.7	55.1	55.1	54.4	53.2	53.2
202.5	52.5	51.9	51.9	51.9	51.3	51.3	51.3	51.3
225.0	51.3	51.3	50.6	50.6	50.0	50.0	49.4	49.4
247.5	49.4	50.0	50.0	50.0	50.6	51.3	51.3	51.9
270.0	52.5	52.5	52.5	51.9	51.9	52.5	53.2	53.2
292.5	53.8	53.8	54.4	55.1	55.7	56.3	57.0	57.6
315.0	58.2	58.9	59.5	60.7	62.0	63.3	63.9	64.5
337.5	65.8	66.4	67.7	69.0	69.6	70.2	71.5	72.1

DEPTH: 2590 TILT: 0 RANGE: 150.0 VOS: 6007

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	75.9	77.2	78.5	79.7	80.4	80.4	81.0	81.0
22.5	82.3	82.3	82.9	83.5	84.2	86.1	88.0	89.2
45.0	94.9	97.5	100.0	102.5	102.5	102.5	95.6	91.8
67.5	89.9	89.2	89.2	88.6	89.2	89.2	88.6	88.6
90.0	88.0	88.6	89.9	89.9	89.9	89.2	88.6	86.1
112.5	82.9	79.7	77.8	77.2	75.3	74.0	72.8	72.1
135.0	71.5	70.9	70.2	69.6	69.6	69.0	69.0	69.0
157.5	68.3	67.7	67.1	65.8	65.8	65.2	65.8	65.8
180.0	66.4	66.4	60.7	57.6	57.6	57.6	57.0	56.3
202.5	55.7	55.7	56.3	55.7	55.1	55.1	55.1	55.1
225.0	55.1	55.1	54.4	53.8	53.2	53.2	53.8	53.2
247.5	53.2	53.2	53.2	53.2	53.2	53.8	54.4	55.1
270.0	55.1	55.1	55.1	55.1	54.4	55.1	55.7	55.7
292.5	55.7	56.3	56.3	57.0	57.6	58.9	59.5	59.5
315.0	60.7	62.0	62.0	63.3	63.9	65.2	65.8	67.1
337.5	67.7	69.0	70.2	71.5	72.8	73.4	74.0	75.3

DEPTH: 2600 TILT: 0 RANGE: 150.0 VOS: 6007

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	77.8	79.7	81.6	82.3	82.9	83.5	84.8	85.4
22.5	86.1	86.7	87.3	88.0	91.1	93.0	95.6	96.8
45.0	98.1	98.1	98.1	97.5	96.2	94.9	93.7	93.7
67.5	93.0	91.8	92.4	91.1	89.9	89.2	89.2	89.9
90.0	90.5	91.1	91.1	90.5	89.9	88.6	88.6	85.4
112.5	82.9	79.7	78.5	77.2	76.6	74.7	74.7	74.0
135.0	72.1	70.2	69.0	67.7	67.1	67.1	67.1	66.4
157.5	66.4	67.1	66.4	65.8	65.8	65.8	66.4	66.4
180.0	67.1	67.1	59.5	58.9	58.2	58.9	58.9	58.9
202.5	57.6	57.0	56.3	56.3	55.7	56.3	56.3	55.7
225.0	55.7	55.1	54.4	54.4	54.4	55.1	55.1	55.7
247.5	56.3	56.3	57.0	57.0	57.0	57.0	56.3	56.3
270.0	57.0	57.0	57.0	57.6	57.6	58.2	58.2	58.2
292.5	58.2	58.9	60.1	60.1	60.7	61.4	61.4	61.4
315.0	62.6	64.5	66.4	67.1	68.3	70.2	70.9	71.5
337.5	72.1	72.8	73.4	74.0	74.7	75.3	75.9	76.6

DEPTH: 2610 TILT: 0 RANGE: 150.0 VOS: 6007

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	82.3	82.9	83.5	84.2	85.4	85.4	86.7	87.3
22.5	88.6	90.5	92.4	92.4	94.9	96.2	96.8	98.1
45.0	98.7	98.1	97.5	96.2	95.6	95.6	95.6	95.6
67.5	94.9	94.9	93.7	93.7	93.0	92.4	92.4	92.4
90.0	92.4	92.4	91.8	91.1	91.1	89.9	88.0	86.1
112.5	84.2	80.4	79.1	75.3	74.7	73.4	72.1	70.9
135.0	69.6	69.0	68.3	67.1	67.1	66.4	65.8	65.8
157.5	65.8	66.4	67.1	68.3	69.0	69.6	70.2	70.9
180.0	72.1	72.1	70.9	69.6	65.8	60.1	58.9	58.2
202.5	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2
225.0	57.6	57.6	57.6	57.6	57.6	57.6	57.6	58.2
247.5	58.9	58.9	58.9	59.5	59.5	59.5	59.5	58.9
270.0	59.5	59.5	59.5	59.5	59.5	58.9	59.5	59.5
292.5	60.1	60.1	60.7	61.4	62.0	62.0	62.6	63.3
315.0	65.2	67.7	69.0	70.2	71.5	72.1	73.4	74.7
337.5	75.3	75.9	76.6	77.2	77.8	79.1	79.7	81.0

DEPTH: 2620 TILT: 0 RANGE: 150.0 VOS: 6007

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	84.8	85.4	87.3	89.2	89.9	90.5	91.8	94.3
22.5	94.9	95.6	97.5	98.7	100.0	100.0	100.0	100.0
45.0	99.3	99.3	98.7	98.1	96.8	96.2	95.6	94.9
67.5	94.9	94.9	93.7	93.7	93.7	93.7	93.7	93.7
90.0	93.7	93.7	93.0	90.5	88.6	88.0	87.3	85.4
112.5	82.3	79.7	77.8	77.2	75.3	74.7	72.1	70.9
135.0	70.2	69.6	69.0	68.3	67.7	67.1	65.8	65.8
157.5	65.8	66.4	67.1	67.1	67.7	68.3	68.3	69.0
180.0	69.6	69.6	69.0	68.3	65.8	63.9	63.9	62.6
202.5	62.0	61.4	60.7	60.1	59.5	59.5	59.5	58.9
225.0	58.2	58.2	58.2	58.2	58.2	58.2	58.9	58.2
247.5	58.9	58.9	58.9	58.9	60.1	60.1	59.5	59.5
270.0	59.5	59.5	62.0	62.6	63.3	63.3	63.9	64.5
292.5	65.2	65.8	66.4	67.1	67.7	68.3	69.6	70.9
315.0	72.1	72.1	72.8	72.8	72.1	72.8	73.4	74.7
337.5	75.3	75.9	77.8	78.5	79.7	81.0	82.3	83.5

DEPTH: 2630 TILT: 0 RANGE: 200.0 VOS: 6008

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	106.3	109.7	112.2	113.1	113.9	115.6	117.3	119.8
22.5	120.7	121.5	122.3	122.3	121.5	119.8	119.0	118.1
45.0	118.1	117.3	116.4	114.7	108.8	106.3	102.1	100.4
67.5	97.0	101.2	97.9	104.6	104.6	104.6	102.9	102.1
90.0	102.1	101.2	96.2	94.5	93.7	77.6	75.9	75.1
112.5	73.4	73.4	72.6	71.7	71.7	70.9	70.9	70.0
135.0	83.5	84.4	83.5	83.5	83.5	82.7	77.6	76.8
157.5	76.8	75.9	75.9	75.1	73.4	73.4	73.4	66.7
180.0	66.7	65.8	67.5	66.7	66.7	65.8	62.4	62.4
202.5	62.4	64.1	66.7	70.9	69.2	65.8	64.1	63.3
225.0	63.3	62.4	62.4	62.4	60.7	60.7	62.4	64.1
247.5	68.3	70.0	72.6	71.7	71.7	71.7	71.7	72.6
270.0	75.1	75.1	75.9	75.9	76.8	75.1	75.1	75.1
292.5	75.1	75.9	77.6	77.6	76.8	75.9	75.9	74.2
315.0	75.1	75.1	75.9	76.8	78.5	78.5	80.2	81.0
337.5	82.7	82.7	83.5	83.5	84.4	99.6	102.1	104.6

DEPTH: 2640 TILT: 0 RANGE: 200.0 VOS: 6008

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	115.6	116.4	123.2	129.9	134.2	140.9	141.7	143.4
22.5	143.4	142.6	141.7	141.7	142.6	143.4	144.3	144.3
45.0	144.3	143.4	144.3	144.3	143.4	142.6	140.1	136.7
67.5	135.0	134.2	132.5	130.8	130.8	130.8	129.9	127.4
90.0	126.6	124.9	125.7	126.6	127.4	124.9	123.2	122.3
112.5	119.8	117.3	117.3	117.3	116.4	99.6	97.9	97.9
135.0	97.0	97.0	95.3	92.8	91.1	88.6	86.1	86.1
157.5	86.1	86.9	85.2	84.4	82.7	81.8	81.0	80.2
180.0	79.3	81.8	83.5	84.4	83.5	81.0	80.2	78.5
202.5	78.5	77.6	76.8	75.9	75.9	75.1	75.1	75.1
225.0	74.2	74.2	74.2	73.4	73.4	74.2	74.2	74.2
247.5	74.2	74.2	74.2	74.2	75.1	75.1	75.9	76.8
270.0	77.6	77.6	77.6	78.5	78.5	79.3	80.2	80.2
292.5	81.0	81.0	81.0	81.8	82.7	83.5	84.4	85.2
315.0	86.1	86.1	86.9	86.9	86.9	86.9	92.0	92.8
337.5	92.8	89.4	94.5	94.5	97.0	97.9	103.8	112.2

DEPTH: 2650 TILT: 0 RANGE: 200.0 VOS: 6008

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	138.4	140.1	143.4	144.3	146.8	157.8	166.2	176.3
22.5	175.5	172.1	164.5	151.9	148.5	146.0	145.1	145.1
45.0	146.0	145.1	143.4	141.7	139.2	137.5	135.0	131.6
67.5	132.5	133.3	133.3	134.2	133.3	131.6	129.9	128.2
90.0	127.4	127.4	125.7	123.2	122.3	120.7	119.8	117.3
112.5	115.6	113.9	108.8	106.3	102.9	101.2	100.4	99.6
135.0	97.0	94.5	88.6	88.6	86.9	86.1	84.4	84.4
157.5	83.5	84.4	83.5	82.7	82.7	83.5	85.2	85.2
180.0	85.2	83.5	82.7	81.8	81.0	79.3	78.5	77.6
202.5	77.6	77.6	77.6	77.6	76.8	77.6	76.8	76.8
225.0	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8
247.5	77.6	77.6	77.6	78.5	77.6	78.5	79.3	79.3
270.0	80.2	81.0	81.0	81.0	81.0	82.7	83.5	84.4
292.5	84.4	86.1	86.9	87.7	87.7	88.6	90.3	90.3
315.0	92.0	93.7	94.5	96.2	97.9	99.6	102.9	109.7
337.5	113.1	114.7	119.0	121.5	122.3	124.0	129.1	132.5

DEPTH: 2660 TILT: 0 RANGE: 175.0 VOS: 6008

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	136.6	137.3	141.7	144.0	144.7	151.3	163.1	169.1
22.5	167.6	165.4	160.2	153.6	151.3	149.1	146.9	145.4
45.0	145.4	146.2	146.9	146.2	144.7	144.0	143.2	138.8
67.5	135.8	132.9	132.9	133.6	133.6	133.6	130.7	128.5
90.0	126.2	125.5	125.5	124.8	124.0	120.3	118.1	115.2
112.5	111.5	109.3	107.0	104.8	104.1	102.6	101.1	99.7
135.0	98.2	94.5	91.5	88.6	87.8	86.4	85.6	84.9
157.5	83.4	83.4	83.4	83.4	82.7	82.7	83.4	83.4
180.0	83.4	82.7	81.9	82.7	81.9	81.2	81.2	80.5
202.5	79.7	79.7	79.7	79.7	79.0	78.3	78.3	77.5
225.0	77.5	76.8	76.8	76.8	77.5	77.5	77.5	77.5
247.5	77.5	77.5	77.5	77.5	78.3	79.0	79.0	79.0
270.0	79.7	79.7	80.5	80.5	81.9	82.7	84.2	84.2
292.5	84.9	85.6	87.1	87.1	88.6	90.1	91.5	92.3
315.0	93.0	94.5	95.2	96.0	99.7	103.4	106.3	109.3
337.5	110.7	112.9	116.6	119.6	124.0	129.2	131.4	133.6

DEPTH: 2670 TILT: 0 RANGE: 175.0 VOS: 6008

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	133.6	134.4	135.1	139.5	146.9	153.6	158.0	162.4
22.5	160.9	156.5	152.8	149.1	146.9	145.4	144.7	144.7
45.0	145.4	146.2	146.2	144.7	141.0	138.0	135.8	132.9
67.5	131.4	132.1	132.1	132.9	131.4	128.5	127.0	126.2
90.0	124.0	123.3	122.5	121.8	118.1	114.4	110.7	107.0
112.5	105.6	103.4	101.9	100.4	99.7	98.9	98.2	95.2
135.0	93.0	90.1	87.8	85.6	84.9	84.2	83.4	82.7
157.5	81.9	81.2	81.2	81.2	81.9	82.7	83.4	84.2
180.0	83.4	82.7	81.9	81.2	80.5	79.0	78.3	78.3
202.5	77.5	77.5	76.8	76.0	75.3	75.3	75.3	75.3
225.0	75.3	75.3	75.3	75.3	75.3	76.0	76.8	76.0
247.5	76.8	76.8	77.5	77.5	78.3	78.3	79.0	79.7
270.0	79.7	81.2	81.2	81.9	82.7	84.2	84.9	86.4
292.5	87.1	89.3	90.1	90.1	90.8	91.5	91.5	93.0
315.0	93.8	96.0	98.2	101.9	104.8	107.0	110.0	111.5
337.5	113.7	114.4	118.9	121.8	126.2	130.7	131.4	132.9

DEPTH: 2680 TILT: 0 RANGE: 175.0 VOS: 6008

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	135.1	138.0	140.3	144.7	147.6	149.9	156.5	155.8
22.5	154.3	151.3	146.9	144.0	142.5	142.5	143.2	143.2
45.0	142.5	141.7	141.7	140.3	138.0	135.8	132.1	131.4
67.5	130.7	131.4	130.7	129.9	127.0	124.8	123.3	122.5
90.0	121.8	120.3	120.3	116.6	114.4	108.5	105.6	102.6
112.5	101.9	99.7	98.9	97.4	97.4	98.9	100.4	101.1
135.0	85.6	84.9	84.2	84.2	83.4	81.9	81.9	81.2
157.5	80.5	80.5	80.5	79.7	80.5	81.2	81.9	81.9
180.0	81.2	80.5	80.5	79.7	79.0	79.0	77.5	76.8
202.5	76.8	75.3	75.3	74.6	74.6	73.8	73.8	73.8
225.0	73.8	74.6	74.6	74.6	74.6	74.6	75.3	75.3
247.5	75.3	75.3	76.8	76.8	77.5	78.3	78.3	79.0
270.0	79.7	80.5	81.2	81.9	82.7	83.4	84.2	85.6
292.5	86.4	87.1	87.8	88.6	89.3	90.1	90.8	92.3
315.0	95.2	97.4	99.7	102.6	104.8	109.3	112.2	113.7
337.5	114.4	118.1	123.3	124.8	127.0	128.5	129.9	130.7

DEPTH: 2690 TILT: 0 RANGE: 175.0 VOS: 6009

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	130.7	133.6	135.9	136.6	138.1	141.8	146.2	146.9
22.5	146.2	142.5	141.8	141.0	140.3	137.3	136.6	135.9
45.0	135.1	131.4	132.2	132.2	130.7	130.0	129.2	129.2
67.5	129.2	128.5	126.3	124.0	122.6	121.1	120.4	119.6
90.0	118.9	117.4	115.9	111.5	107.1	104.1	100.4	99.7
112.5	98.9	97.5	96.7	95.2	93.8	93.0	92.3	90.8
135.0	87.1	85.6	84.9	83.4	82.7	82.0	82.0	81.2
157.5	81.2	81.2	80.5	80.5	80.5	80.5	80.5	80.5
180.0	80.5	79.7	79.7	79.0	78.3	77.5	76.8	76.8
202.5	75.3	75.3	74.6	74.6	73.8	73.8	73.8	73.8
225.0	74.6	74.6	74.6	74.6	74.6	74.6	75.3	75.3
247.5	76.1	76.8	77.5	77.5	78.3	79.0	79.0	79.0
270.0	79.7	80.5	80.5	81.2	82.7	83.4	84.2	84.9
292.5	85.6	86.4	87.9	88.6	89.3	90.8	92.3	93.8
315.0	96.0	98.2	100.4	102.6	104.8	107.8	110.0	113.0
337.5	114.4	116.7	118.1	118.9	121.8	123.3	124.8	127.7

DEPTH: 2700 TILT: 0 RANGE: 150.0 VOS: 6009

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	119.6	123.4	127.2	130.4	131.0	132.3	134.8	138.0
22.5	138.0	136.1	134.2	133.5	132.9	132.3	129.1	128.5
45.0	127.2	125.3	123.4	121.5	121.5	121.5	122.1	122.8
67.5	123.4	123.4	123.4	123.4	123.4	122.1	119.6	118.3
90.0	115.8	114.5	113.9	112.0	106.3	98.7	96.2	95.6
112.5	94.3	91.8	91.1	89.9	88.6	88.6	88.6	88.6
135.0	89.9	89.2	88.6	84.8	85.4	85.4	84.8	82.9
157.5	81.6	79.1	79.1	79.1	79.1	79.7	79.1	78.5
180.0	77.8	76.6	75.9	73.4	71.5	70.2	68.3	68.3
202.5	68.3	67.7	67.7	67.7	67.7	67.1	67.1	68.3
225.0	69.0	68.3	68.3	67.7	67.7	69.0	70.2	70.9
247.5	72.1	72.8	72.8	72.1	72.1	72.1	71.5	72.1
270.0	73.4	75.9	76.6	76.6	77.2	76.6	77.8	79.7
292.5	80.4	81.0	81.6	82.9	84.2	86.1	86.1	87.3
315.0	88.6	89.9	91.1	93.0	94.3	94.9	96.2	98.7
337.5	102.5	105.0	106.9	109.5	112.0	113.9	116.4	116.4

DEPTH: 2710 TILT: 0 RANGE: 150.0 VOS: 6009

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	113.3	113.3	113.3	113.9	115.8	115.8	116.4	117.7
22.5	119.6	121.5	122.1	123.4	123.4	123.4	123.4	122.8
45.0	122.1	120.9	119.6	118.3	116.4	113.9	113.3	110.7
67.5	110.1	109.5	107.6	106.9	105.7	101.9	100.0	100.0
90.0	100.0	100.0	98.1	96.2	95.6	92.4	91.8	91.8
112.5	90.5	90.5	90.5	88.0	86.7	84.2	82.3	81.6
135.0	80.4	81.0	81.0	79.7	79.7	79.7	81.0	81.0
157.5	80.4	79.1	76.6	75.9	75.9	77.2	77.8	78.5
180.0	77.8	76.6	75.3	71.5	66.4	65.2	61.4	60.8
202.5	60.8	60.8	61.4	61.4	61.4	60.8	60.8	61.4
225.0	62.0	62.0	62.0	61.4	60.8	61.4	61.4	62.0
247.5	62.0	63.3	63.9	64.5	64.5	64.5	64.5	65.8
270.0	67.1	68.3	69.6	71.5	70.9	70.9	70.9	70.9
292.5	71.5	73.4	74.0	75.9	78.5	81.0	80.4	79.7
315.0	79.7	81.6	81.6	82.9	84.8	87.3	89.9	90.5
337.5	95.6	100.6	102.5	103.2	105.0	107.6	110.1	113.3

DEPTH: 2720 TILT: 0 RANGE: 149.9 VOS: 6009

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	94.3	94.9	95.5	94.9	94.9	95.5	96.2	97.4
22.5	99.3	101.9	103.8	103.8	102.5	101.9	101.9	101.9
45.0	99.3	100.0	100.0	101.2	101.2	103.1	103.1	102.5
67.5	98.7	94.9	94.9	94.3	94.3	93.0	92.4	89.8
90.0	88.6	86.7	87.3	87.9	89.2	88.6	86.7	84.1
112.5	82.2	80.3	77.8	76.5	75.3	75.3	74.7	74.0
135.0	72.8	71.5	69.6	69.6	69.0	67.7	66.4	66.4
157.5	66.4	65.8	65.8	65.2	65.2	64.5	65.2	63.9
180.0	62.0	61.4	61.4	62.6	62.0	61.4	60.1	58.8
202.5	57.6	56.3	55.7	55.0	55.0	55.7	55.7	56.3
225.0	56.3	56.3	56.9	57.6	56.9	56.9	55.7	55.7
247.5	55.0	55.7	55.7	55.7	56.9	57.6	57.6	58.8
270.0	59.5	59.5	60.1	60.1	60.1	60.7	61.4	63.3
292.5	62.6	63.3	63.3	63.9	63.9	65.8	65.8	66.4
315.0	67.1	68.3	70.2	72.1	75.3	75.9	75.9	76.5
337.5	79.7	80.3	81.6	83.5	88.6	90.5	93.0	94.3

DEPTH: 2730 TILT: 0 RANGE: 150.0 VOS: 6010

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	83.5	84.2	85.4	85.4	84.8	86.7	91.1	92.4
22.5	92.4	90.5	89.8	89.2	88.6	88.6	88.6	88.6
45.0	88.0	88.0	86.7	86.7	86.7	86.7	86.1	84.8
67.5	83.5	81.6	80.4	79.7	75.9	75.9	74.7	74.7
90.0	74.7	74.7	74.7	74.0	72.8	67.1	67.1	65.8
112.5	62.6	60.7	58.8	58.2	58.2	58.8	58.2	56.9
135.0	56.9	56.3	55.7	54.4	53.8	53.2	53.2	53.2
157.5	52.5	52.5	51.9	51.9	51.9	50.6	50.0	50.0
180.0	50.6	50.6	50.6	49.4	49.4	48.7	48.7	48.1
202.5	46.8	46.8	46.2	45.6	46.2	45.6	45.6	44.9
225.0	43.7	43.0	42.4	41.8	41.1	40.5	41.1	41.1
247.5	41.8	41.8	41.8	43.0	43.7	43.0	42.4	43.0
270.0	44.3	44.9	45.6	46.2	46.8	48.1	49.4	48.7
292.5	48.1	48.1	48.7	51.3	52.5	53.2	55.0	56.3
315.0	58.8	58.8	60.7	62.6	63.3	63.3	65.2	67.7
337.5	69.6	70.2	72.8	77.2	79.1	79.7	81.0	82.9

DEPTH: 2740 TILT: 0 RANGE: 100.0 VOS: 6010

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	67.5	71.3	74.2	74.7	74.7	74.7	74.7	74.7
22.5	75.9	77.6	78.5	78.5	78.0	78.0	78.0	77.6
45.0	77.6	77.2	76.4	76.4	75.1	74.7	74.7	73.0
67.5	72.6	71.3	70.0	69.6	68.3	67.1	65.8	64.1
90.0	62.9	61.6	61.6	61.6	61.6	59.9	58.6	56.9
112.5	55.3	53.6	51.9	50.6	50.6	48.9	48.1	47.2
135.0	45.1	45.1	45.1	45.1	45.6	45.1	44.3	42.6
157.5	41.8	40.9	40.1	39.7	38.0	37.5	37.5	37.1
180.0	37.1	36.7	36.7	37.5	37.5	37.1	36.7	36.7
202.5	36.3	36.7	37.5	38.0	38.0	36.7	36.3	35.9
225.0	35.9	35.9	35.9	35.9	35.4	35.4	35.4	35.0
247.5	34.2	34.2	34.2	34.6	36.3	35.9	35.9	36.3
270.0	36.7	36.7	36.3	35.9	35.4	35.4	35.9	37.1
292.5	36.7	38.8	39.7	40.1	40.5	41.8	42.6	43.4
315.0	45.1	46.4	47.7	47.2	47.2	48.1	48.1	49.8
337.5	51.9	54.0	54.4	58.2	62.4	64.5	65.0	67.1

DEPTH: 2750 TILT: 0 RANGE: 100.0 VOS: 6010

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	47.7	49.4	52.3	54.8	56.9	56.9	57.8	58.2
22.5	58.6	60.3	61.2	62.0	62.9	63.7	64.5	65.8
45.0	66.2	65.8	64.5	62.9	61.6	60.3	59.5	57.8
67.5	57.8	56.5	55.7	54.4	52.3	51.0	49.8	48.1
90.0	47.2	46.4	46.4	45.1	43.9	43.4	41.8	40.9
112.5	38.8	35.9	35.4	34.6	33.3	31.6	31.2	29.9
135.0	28.7	28.3	27.8	27.4	27.4	27.0	26.6	26.2
157.5	25.7	25.3	24.9	24.5	24.0	23.6	23.2	23.2
180.0	23.6	23.6	23.6	24.0	23.6	23.6	23.6	23.2
202.5	23.2	23.2	23.2	23.2	22.8	22.8	22.8	22.8
225.0	22.8	22.8	22.4	22.4	22.4	21.9	21.5	21.5
247.5	21.5	21.5	21.1	21.1	21.1	21.1	21.1	21.1
270.0	21.1	21.1	21.5	21.5	21.5	21.5	21.9	21.9
292.5	21.9	21.9	21.9	22.4	22.8	24.5	27.0	27.0
315.0	27.4	27.4	27.8	27.8	28.3	28.7	33.7	34.6
337.5	35.0	36.3	36.7	42.2	44.3	44.7	45.6	46.4

DEPTH: 2760 TILT: 0 RANGE: 75.0 VOS: 6010

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	43.0	44.9	49.7	51.6	52.8	54.7	55.7	55.7
22.5	55.7	55.7	56.3	56.3	57.2	58.5	59.8	59.8
45.0	59.5	58.8	57.9	56.9	56.0	55.3	54.1	53.1
67.5	50.9	49.7	48.4	47.4	47.1	47.1	45.2	43.6
90.0	42.7	41.1	39.2	34.5	34.2	34.2	33.5	32.9
112.5	32.9	28.1	25.0	23.4	22.8	22.1	21.8	19.9
135.0	19.6	19.6	19.6	19.6	19.9	20.2	21.5	22.1
157.5	22.8	23.4	23.7	23.7	23.7	19.0	19.3	19.3
180.0	19.9	19.9	20.2	19.9	19.6	18.7	18.3	17.7
202.5	18.0	18.3	18.3	18.7	18.7	18.7	18.3	18.0
225.0	17.7	17.7	17.4	17.7	17.4	17.4	17.4	17.7
247.5	18.0	18.0	17.7	18.0	18.3	18.7	18.3	18.0
270.0	17.7	17.4	17.7	18.7	18.7	18.3	18.0	17.7
292.5	18.0	18.3	18.7	18.7	18.7	18.7	19.0	20.2
315.0	20.2	22.5	22.8	22.8	22.8	23.4	23.4	31.6
337.5	32.9	32.9	33.2	33.5	38.0	39.2	42.4	42.7

DEPTH: 2770 TILT: 0 RANGE: 75.0 VOS: 6012

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	43.0	43.0	43.3	50.9	52.2	52.5	52.5	52.5
22.5	53.2	53.5	53.8	53.8	53.8	53.8	53.8	53.8
45.0	53.5	53.2	53.2	52.8	51.3	50.3	50.0	49.4
67.5	47.1	46.5	45.2	44.6	44.0	43.7	41.1	40.8
90.0	37.3	36.4	35.1	34.5	33.9	32.3	31.6	31.3
112.5	23.7	23.1	21.8	21.2	20.6	19.9	18.4	16.8
135.0	16.8	16.8	17.1	17.4	17.7	17.7	18.4	19.0
157.5	19.0	19.3	18.7	18.4	17.1	16.8	16.8	17.1
180.0	17.1	17.1	16.8	16.8	16.1	16.1	15.5	15.5
202.5	16.1	16.1	16.1	16.1	15.8	15.5	15.2	15.2
225.0	14.9	14.9	14.9	14.9	15.2	15.2	15.2	15.5
247.5	15.5	15.5	15.5	15.2	15.5	15.8	16.1	16.5
270.0	16.5	16.1	16.5	17.1	17.1	17.1	17.4	17.4
292.5	17.7	17.4	17.7	17.7	17.4	17.7	17.7	18.0
315.0	19.6	20.9	21.2	21.5	22.1	22.5	22.5	32.0
337.5	32.0	32.6	32.6	38.3	38.9	39.5	40.5	40.8

DEPTH: 2780 TILT: 0 RANGE: 75.0 VOS: 6012

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	46.5	46.8	48.1	48.7	49.7	50.0	51.3	51.3
22.5	51.6	51.9	52.2	51.9	51.6	51.6	51.6	51.9
45.0	51.9	51.3	51.3	49.4	48.4	47.5	46.8	45.9
67.5	45.2	45.2	44.6	44.0	42.7	40.5	40.5	35.1
90.0	33.9	33.2	31.3	30.7	30.1	29.7	22.1	21.2
112.5	20.9	20.6	20.2	19.9	19.3	16.1	16.1	16.1
135.0	16.5	16.1	16.1	16.1	15.5	16.1	16.1	15.8
157.5	15.5	14.9	15.2	15.2	15.2	15.2	14.9	14.6
180.0	14.2	14.2	14.6	14.6	14.2	14.2	14.9	15.2
202.5	15.5	15.8	15.5	15.2	14.9	14.6	14.2	13.9
225.0	13.6	13.6	13.3	13.3	13.6	13.9	13.9	13.9
247.5	14.2	14.2	14.6	14.9	14.9	14.9	14.9	14.9
270.0	14.9	14.9	15.8	15.8	16.1	16.1	16.5	17.1
292.5	17.1	17.4	17.4	17.4	17.4	18.0	18.4	18.4
315.0	19.6	19.9	20.6	21.8	22.1	22.1	22.5	30.7
337.5	32.0	32.3	37.0	38.9	38.9	39.5	40.2	43.3

DEPTH: 2790 TILT: 0 RANGE: 75.0 VOS: 6012

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	40.2	42.4	44.9	45.2	47.1	47.8	48.7	48.7
22.5	50.0	50.6	50.9	50.6	49.0	48.7	49.0	49.4
45.0	49.7	49.7	49.4	49.4	47.1	47.1	46.2	45.2
67.5	44.6	44.6	44.0	43.3	42.7	38.6	38.3	38.6
90.0	35.4	31.0	30.4	29.7	29.1	28.8	28.5	23.1
112.5	21.2	20.2	19.9	19.3	19.0	18.4	16.8	16.1
135.0	15.8	15.5	15.2	15.2	14.9	14.9	14.9	14.6
157.5	14.6	14.6	13.9	13.3	13.6	13.6	13.6	13.3
180.0	13.0	12.7	12.3	12.3	12.3	12.0	11.4	11.1
202.5	11.4	11.4	11.1	11.4	11.4	11.1	10.8	10.8
225.0	10.4	10.4	10.8	10.8	12.7	12.3	12.7	13.0
247.5	13.3	13.6	13.9	14.2	13.9	13.9	13.9	14.2
270.0	14.2	14.6	14.6	14.9	15.2	15.2	16.8	16.8
292.5	16.8	17.1	17.1	17.1	17.1	17.1	17.4	17.4
315.0	19.3	19.9	21.2	21.5	21.8	22.1	22.1	22.1
337.5	32.0	32.0	37.0	38.3	38.6	39.2	39.5	39.9

DEPTH: 2800 TILT: 0 RANGE: 75.0 VOS: 6012

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	39.9	41.4	42.7	44.3	45.6	46.8	46.8	47.1
22.5	48.4	49.7	50.3	50.0	47.8	47.5	47.5	47.5
45.0	47.5	47.5	47.5	47.5	47.1	46.8	45.9	44.9
67.5	44.3	43.7	42.7	41.8	41.4	38.0	36.1	32.0
90.0	30.1	30.1	29.4	28.8	23.4	21.5	20.6	20.2
112.5	19.6	19.3	19.0	19.0	14.2	13.9	13.9	14.2
135.0	14.2	14.2	14.6	14.2	13.9	13.6	13.6	13.6
157.5	13.6	13.9	12.3	12.0	12.0	11.7	9.5	9.2
180.0	9.2	9.2	9.2	8.9	8.9	8.9	8.9	8.9
202.5	8.9	8.5	8.9	8.9	9.2	9.2	9.2	9.2
225.0	9.5	9.8	9.8	10.8	10.8	10.8	11.1	12.7
247.5	13.0	12.3	11.4	11.7	11.7	12.7	13.0	13.0
270.0	13.3	13.6	16.5	16.8	16.8	16.8	16.8	16.5
292.5	16.8	16.8	16.8	16.8	16.8	17.1	16.8	16.8
315.0	16.5	20.9	21.5	22.1	23.1	23.7	29.7	30.7
337.5	31.0	31.3	32.0	37.3	38.3	38.9	38.9	39.2

DEPTH: 2810 TILT: 0 RANGE: 75.0 VOS: 6012

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	39.5	40.5	43.0	44.6	45.6	45.9	46.5	47.5
22.5	47.8	48.1	48.1	47.8	47.5	46.8	46.8	46.8
45.0	46.8	47.5	47.1	46.5	45.9	45.6	44.6	43.7
67.5	42.7	42.1	41.4	40.8	36.7	37.0	28.8	28.5
90.0	28.2	27.5	18.7	18.4	18.4	18.4	18.7	18.7
112.5	18.7	18.7	18.4	13.9	13.9	13.9	13.6	13.6
135.0	13.6	13.3	13.3	13.0	13.0	12.7	12.7	12.3
157.5	12.3	12.3	12.3	12.3	12.7	12.7	12.7	12.3
180.0	12.3	8.2	8.2	8.2	8.2	7.9	7.9	7.9
202.5	7.9	7.9	8.2	8.2	8.2	8.2	8.5	8.9
225.0	8.9	8.9	8.9	8.9	9.2	9.8	9.8	9.8
247.5	9.8	10.1	10.1	10.4	10.4	10.8	11.1	11.1
270.0	11.1	15.8	15.8	15.8	15.8	15.8	15.8	16.1
292.5	15.5	15.2	15.5	15.5	15.5	15.5	15.5	15.5
315.0	20.9	21.2	22.1	23.1	23.7	24.4	29.4	30.1
337.5	30.7	30.7	31.0	35.8	35.8	36.4	36.7	37.6

DEPTH: 2820 TILT: 0 RANGE: 75.0 VOS: 6012

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	36.7	41.4	42.7	43.7	44.6	45.9	45.9	45.6
22.5	45.2	46.8	47.5	47.5	46.8	46.5	46.2	45.9
45.0	46.8	47.5	47.1	45.9	45.6	44.6	43.3	42.7
67.5	41.4	40.5	39.5	38.6	37.6	35.4	28.8	28.2
90.0	28.2	27.2	19.0	19.0	19.0	18.7	18.7	17.7
112.5	17.7	17.7	13.0	13.0	12.3	12.0	11.7	12.3
135.0	12.3	12.0	12.3	12.3	12.0	11.7	11.7	11.7
157.5	12.0	11.7	11.7	7.6	7.6	7.6	7.3	7.3
180.0	7.3	7.3	7.3	7.3	7.3	7.3	7.0	7.0
202.5	7.0	7.0	7.0	7.3	7.3	7.3	7.3	7.6
225.0	7.6	7.6	7.6	7.3	7.6	8.2	8.5	8.5
247.5	8.5	8.9	8.9	8.9	8.9	8.9	9.2	9.5
270.0	9.5	9.8	10.4	10.4	10.4	10.8	14.2	14.6
292.5	14.9	15.2	14.6	14.6	14.9	15.2	15.2	15.8
315.0	15.5	17.1	17.4	20.2	21.2	21.8	22.1	28.8
337.5	29.4	31.0	32.3	33.5	33.9	34.5	35.4	36.4

DEPTH: 2830 TILT: 0 RANGE: 75.0 VOS: 6012

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	41.4	41.8	42.4	43.0	44.0	44.3	44.9	44.9
22.5	46.5	47.8	47.8	46.2	46.2	46.2	46.2	46.5
45.0	46.8	46.8	46.5	45.9	44.6	43.3	41.8	40.5
67.5	39.9	39.2	38.3	37.0	34.8	29.7	28.5	28.2
90.0	23.7	22.1	21.8	20.9	20.2	19.3	18.7	17.7
112.5	17.4	11.7	12.0	10.8	10.8	10.8	10.8	10.4
135.0	10.4	10.4	10.4	10.4	10.4	10.8	10.8	10.8
157.5	10.8	10.8	10.8	10.4	10.1	9.8	8.9	8.5
180.0	8.5	8.5	8.5	8.2	8.2	7.6	7.0	7.0
202.5	7.0	7.0	6.6	7.0	6.6	6.6	6.3	6.3
225.0	6.3	6.6	7.0	7.0	7.6	7.3	7.3	8.2
247.5	8.2	8.2	8.2	8.9	8.9	8.5	8.9	8.9
270.0	9.2	8.9	9.2	9.5	13.6	13.6	13.6	13.6
292.5	13.9	13.9	13.6	13.9	13.9	14.2	14.2	14.2
315.0	14.2	14.2	14.2	20.2	20.9	21.2	21.8	28.2
337.5	28.5	29.1	29.1	33.5	33.9	34.5	34.8	35.8

DEPTH: 2840 TILT: 0 RANGE: 74.6 VOS: 6012

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	40.3	40.3	41.2	41.9	44.1	44.4	44.4	45.0
22.5	45.9	47.8	47.8	46.3	45.9	45.9	46.3	47.5
45.0	48.5	48.5	47.5	45.3	44.1	42.2	40.3	39.3
67.5	37.8	36.8	36.2	34.6	28.0	27.7	27.4	26.4
90.0	18.6	18.6	18.6	18.6	17.9	17.6	17.6	17.0
112.5	12.0	12.0	12.0	11.3	11.0	11.3	11.6	11.6
135.0	11.0	10.7	11.0	10.7	10.1	9.4	9.4	9.1
157.5	9.1	9.1	8.8	9.1	9.1	8.8	8.5	8.2
180.0	8.2	8.2	7.9	7.6	7.6	7.6	6.6	6.9
202.5	6.9	6.9	6.9	6.6	6.6	6.9	6.9	6.9
225.0	6.9	6.9	6.9	7.2	6.9	7.2	7.6	7.6
247.5	8.2	8.5	8.5	8.5	8.5	8.5	8.8	9.1
270.0	9.4	9.1	9.1	9.4	10.4	10.7	11.0	11.3
292.5	11.6	12.0	12.6	12.3	12.3	13.5	13.5	14.2
315.0	14.5	14.2	14.8	19.5	20.8	21.1	21.7	27.7
337.5	27.7	27.7	28.0	28.0	33.0	33.7	34.3	37.4

DEPTH: 2850 TILT: 0 RANGE: 75.0 VOS: 6045

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	38.9	39.6	41.8	42.4	44.0	44.3	44.9	46.5
22.5	47.8	48.4	48.1	47.5	45.9	45.2	44.9	46.8
45.0	47.8	47.1	46.2	44.0	43.0	41.5	39.9	39.2
67.5	38.9	37.3	36.4	34.5	34.2	27.2	26.9	26.3
90.0	16.5	16.1	16.1	16.1	16.1	16.1	16.1	11.4
112.5	11.4	11.1	11.1	11.1	10.4	10.4	10.4	10.4
135.0	10.4	10.4	10.1	9.8	9.8	9.2	9.2	9.5
157.5	8.2	8.2	8.2	8.2	8.2	7.9	8.2	7.9
180.0	7.9	6.0	6.0	6.0	6.0	6.0	6.0	5.7
202.5	5.7	5.7	5.7	5.7	6.0	6.0	6.0	6.3
225.0	6.3	6.3	6.3	6.3	6.6	6.6	6.6	6.6
247.5	6.6	7.0	7.0	7.3	7.9	7.9	8.2	8.2
270.0	8.5	8.9	9.8	10.1	10.8	11.4	11.4	11.7
292.5	12.0	12.7	13.6	13.6	13.9	14.2	14.2	14.9
315.0	15.8	16.5	17.4	18.7	19.0	23.1	23.7	27.5
337.5	27.8	28.2	29.4	32.0	33.9	34.5	36.1	37.0

DEPTH: 2860 TILT: 0 RANGE: 75.0 VOS: 6045

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	42.7	44.3	45.6	46.5	48.4	49.4	49.7	49.7
22.5	49.0	48.7	48.7	48.1	47.1	46.5	46.5	45.9
45.0	44.9	43.0	42.7	41.8	40.5	39.2	38.9	38.0
67.5	38.0	33.5	33.5	33.5	26.6	26.6	26.6	17.7
90.0	17.1	16.5	16.1	15.8	15.8	15.8	15.8	15.8
112.5	15.2	10.8	10.1	10.1	10.1	10.4	10.1	10.1
135.0	9.8	9.5	9.5	9.5	8.9	8.5	8.5	8.2
157.5	7.9	8.2	7.9	7.9	8.2	8.2	8.2	7.9
180.0	7.6	7.6	7.6	7.0	6.0	6.0	6.0	6.0
202.5	6.0	6.0	6.0	6.3	6.3	6.6	6.6	6.6
225.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.6
247.5	7.0	7.0	7.0	7.3	7.0	7.3	7.9	7.9
270.0	9.2	8.9	8.9	9.2	9.5	9.5	10.1	11.1
292.5	11.1	11.1	11.1	10.8	12.0	13.9	13.9	13.9
315.0	15.2	18.0	19.9	20.6	23.1	27.2	27.5	27.5
337.5	27.8	27.8	30.7	33.2	35.1	36.1	38.3	40.8

DEPTH: 2870 TILT: 0 RANGE: 75.0 VOS: 6045

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	37.7	38.6	41.5	42.4	43.7	45.2	46.2	47.1
22.5	47.5	47.8	48.1	48.4	47.8	46.8	46.2	46.2
45.0	46.2	46.5	45.2	44.6	43.0	41.1	40.5	39.6
67.5	38.6	38.0	37.7	37.3	33.5	33.5	33.5	26.3
90.0	26.3	25.3	16.8	16.1	15.8	15.5	15.8	15.8
112.5	15.8	15.5	10.8	10.4	9.8	9.8	9.2	9.5
135.0	9.5	9.5	9.2	8.9	8.9	9.2	8.9	8.5
157.5	8.5	8.5	8.5	7.9	7.9	7.6	7.6	7.0
180.0	7.0	7.0	7.0	7.0	7.0	7.3	6.6	6.3
202.5	6.3	6.6	6.6	6.6	6.6	6.6	6.3	6.6
225.0	6.6	6.6	6.6	6.6	6.6	7.0	7.0	6.6
247.5	6.6	6.6	6.6	7.0	7.0	7.0	7.0	7.3
270.0	7.3	7.6	7.6	7.6	7.6	7.9	7.6	7.6
292.5	7.6	7.6	7.6	9.2	9.5	10.1	9.8	10.1
315.0	10.1	12.7	13.0	13.0	18.4	18.4	18.7	18.7
337.5	19.0	27.2	27.2	27.2	27.2	27.2	35.1	36.4

DEPTH: 2880 TILT: 0 RANGE: 75.1 VOS: 6046

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	39.9	41.2	42.1	43.4	44.0	45.0	45.6	46.3
22.5	46.6	46.3	45.9	45.6	45.3	45.6	45.9	45.6
45.0	45.0	44.7	43.1	42.1	41.2	39.9	39.0	37.7
67.5	37.4	35.8	35.2	34.2	26.6	26.3	26.0	16.5
90.0	16.2	16.2	15.8	15.5	15.5	15.2	14.9	10.5
112.5	10.5	10.5	10.5	10.5	10.8	10.8	10.8	10.8
135.0	8.9	8.9	8.9	8.6	8.6	8.6	8.6	7.9
157.5	7.6	7.6	7.3	7.0	7.0	6.3	5.4	6.0
180.0	5.4	5.4	5.7	5.7	5.7	6.0	6.0	6.0
202.5	6.0	6.3	6.3	6.3	6.7	6.7	6.3	6.7
225.0	6.3	6.3	6.3	7.0	6.7	6.3	7.0	6.3
247.5	6.3	6.0	6.0	6.0	6.3	6.3	6.7	7.0
270.0	6.7	7.3	7.3	7.3	7.9	8.2	8.6	8.9
292.5	9.5	10.1	11.1	11.4	11.4	12.4	12.7	13.0
315.0	13.6	13.6	13.9	18.7	18.7	18.7	18.7	25.7
337.5	26.3	26.6	28.2	28.8	33.9	34.5	36.8	39.0

DEPTH: 2885 TILT: 0 RANGE: 75.0 VOS: 6046

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	38.6	39.5	40.2	41.4	42.1	43.6	44.3	44.9
22.5	45.9	46.2	46.8	46.5	46.8	46.5	46.8	47.1
45.0	46.5	45.5	44.6	44.0	42.4	41.7	40.2	38.9
67.5	38.0	36.4	35.4	34.8	33.8	27.2	26.9	26.9
90.0	16.1	16.1	16.1	15.8	15.5	15.2	15.2	10.1
112.5	10.1	10.1	10.1	10.1	9.8	9.8	9.8	9.8
135.0	8.2	8.2	7.9	7.6	7.6	7.6	7.6	7.6
157.5	7.6	7.6	7.6	7.3	7.0	7.0	5.4	5.4
180.0	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.7
202.5	5.7	5.7	5.7	6.0	6.0	6.0	6.0	6.0
225.0	6.0	6.0	6.3	6.6	6.3	6.3	6.6	6.6
247.5	6.6	6.6	6.6	6.6	6.3	6.3	6.3	6.3
270.0	6.3	6.6	6.6	7.0	7.0	7.3	7.6	8.5
292.5	8.9	9.8	10.4	11.1	12.3	13.0	13.3	13.0
315.0	13.0	13.6	13.6	13.9	14.5	18.3	18.3	19.0
337.5	19.3	19.9	26.3	26.9	30.7	30.7	31.6	37.6

DEPTH: 2890 TILT: 0 RANGE: 75.0 VOS: 6046

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	36.1	36.7	37.6	39.5	40.8	41.4	43.6	44.0
22.5	44.9	45.2	46.8	49.3	50.3	50.9	51.2	50.6
45.0	49.3	48.4	47.1	45.9	44.3	42.7	41.4	40.5
67.5	38.9	38.0	36.7	35.4	34.5	34.2	33.5	32.6
90.0	26.6	16.4	16.1	15.8	15.8	15.5	15.2	14.5
112.5	14.5	10.1	10.1	10.4	10.8	10.4	10.1	9.8
135.0	9.8	7.9	7.9	8.2	8.2	8.2	8.5	8.2
157.5	8.2	8.2	7.6	7.3	5.1	4.7	4.7	5.1
180.0	5.1	5.1	5.4	5.4	5.4	5.7	5.7	5.7
202.5	5.7	5.7	5.7	5.7	5.4	5.4	5.7	5.7
225.0	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
247.5	5.7	5.7	5.7	5.4	5.7	5.4	5.7	5.7
270.0	5.7	5.7	6.0	6.0	6.0	6.3	6.3	7.0
292.5	7.0	7.6	8.2	8.5	10.4	10.8	11.1	12.3
315.0	12.3	12.0	12.3	12.7	12.7	13.0	18.3	18.3
337.5	19.0	19.3	19.3	26.3	26.6	26.6	32.6	34.5

DEPTH: 2890 TILT: -5 RANGE: 75.0 VOS: 6046

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	34.8	36.4	38.0	39.2	40.5	41.4	42.4	44.3
22.5	44.9	45.2	50.3	55.0	54.4	54.1	53.8	52.5
45.0	51.2	49.7	48.1	46.8	45.2	42.4	41.4	39.9
67.5	38.6	37.6	37.0	35.4	34.8	33.8	33.2	32.9
90.0	26.9	26.6	16.1	15.8	15.8	15.5	14.9	15.2
112.5	10.1	10.1	10.1	10.1	11.1	11.4	7.3	7.6
135.0	7.6	7.9	8.2	8.2	8.5	8.5	8.9	8.9
157.5	8.9	8.5	8.5	8.5	4.7	4.7	4.7	5.1
180.0	5.1	5.1	5.1	5.1	5.1	5.4	5.4	5.7
202.5	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.4
225.0	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
247.5	5.4	5.4	5.4	5.7	5.4	5.4	5.7	5.7
270.0	5.7	6.0	6.0	6.0	6.3	6.3	6.0	6.6
292.5	7.0	8.2	8.2	10.1	10.4	11.7	11.7	12.3
315.0	12.0	12.3	12.7	12.7	13.0	13.0	13.3	19.0
337.5	19.6	19.6	19.9	20.2	26.3	26.6	32.3	32.9

DEPTH: 2890 TILT: -10 RANGE: 75.0 VOS: 6046

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	35.4	36.4	38.9	40.5	41.7	43.3	44.9	46.2
22.5	50.0	55.0	55.3	55.3	55.3	54.1	53.1	52.2
45.0	50.9	50.3	49.3	48.7	46.5	43.6	40.8	39.5
67.5	39.2	38.0	37.3	35.7	35.1	34.2	33.5	27.2
90.0	26.9	25.0	15.8	15.5	15.2	14.9	14.9	14.9
112.5	10.4	10.4	10.4	10.4	10.8	10.8	10.8	8.2
135.0	8.5	8.2	8.2	8.5	8.5	8.5	8.5	8.5
157.5	8.9	8.9	8.5	8.2	8.5	5.1	5.1	5.1
180.0	5.1	5.1	5.1	5.1	5.1	5.4	5.4	5.4
202.5	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
225.0	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
247.5	5.4	5.4	5.4	5.7	5.7	5.7	6.0	6.0
270.0	5.7	6.0	5.7	6.0	6.3	6.3	6.3	7.0
292.5	7.0	8.2	8.9	8.9	10.4	11.1	12.0	12.3
315.0	12.3	12.3	12.3	13.0	13.0	13.0	13.3	19.0
337.5	19.6	19.6	19.9	26.6	26.3	32.6	32.9	33.2

DEPTH: 2890 TILT: -20 RANGE: 75.0 VOS: 6046

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	33.8	35.4	37.3	37.6	40.5	41.1	43.0	43.6
22.5	44.0	44.0	43.6	43.6	43.6	43.3	43.0	42.7
45.0	42.4	42.1	41.7	41.4	40.8	40.2	38.9	38.0
67.5	36.4	35.4	35.1	32.6	31.0	30.4	29.1	27.8
90.0	26.3	25.0	24.4	14.9	14.9	14.9	15.5	15.5
112.5	11.1	10.8	11.1	11.1	11.1	11.1	11.1	10.8
135.0	7.3	7.3	7.6	8.2	8.2	8.5	8.5	8.5
157.5	8.9	8.9	8.9	8.9	8.9	4.7	5.1	5.1
180.0	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
202.5	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
225.0	5.1	5.1	5.1	5.1	5.1	5.4	5.4	5.4
247.5	5.4	5.4	5.4	5.4	5.4	5.4	6.0	6.0
270.0	6.0	6.0	6.0	6.0	6.3	6.3	6.6	6.6
292.5	7.0	7.0	7.0	10.4	11.1	11.1	11.7	11.7
315.0	12.3	12.3	13.0	13.3	13.6	14.2	15.8	19.3
337.5	20.2	22.1	23.4	24.7	26.6	28.8	30.4	30.7

DEPTH: 2890 TILT: -30 RANGE: 75.0 VOS: 6046

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	23.1	23.7	24.0	24.0	24.0	24.4	24.4	24.7
22.5	24.7	25.0	25.3	25.9	25.9	25.9	26.9	27.8
45.0	29.7	30.0	29.7	29.7	28.1	27.8	26.9	26.6
67.5	26.3	25.9	25.3	24.7	24.0	23.7	23.4	23.1
90.0	23.1	21.5	19.6	18.0	16.1	17.1	14.9	12.7
112.5	12.7	12.7	12.0	11.7	10.4	10.8	11.1	11.1
135.0	8.2	8.2	9.2	9.2	9.2	9.2	9.5	9.8
157.5	9.5	9.2	8.9	8.9	8.5	5.1	4.7	5.1
180.0	5.4	5.1	5.4	5.4	5.1	5.4	5.4	5.7
202.5	5.4	5.4	5.7	6.0	5.4	5.7	5.4	5.4
225.0	5.4	5.7	5.4	5.7	5.7	5.7	5.4	5.7
247.5	5.4	5.4	5.4	5.7	5.7	5.7	5.7	5.7
270.0	6.0	6.3	6.6	6.3	6.6	6.6	6.6	7.0
292.5	6.3	6.6	6.6	6.6	10.8	12.0	14.2	13.6
315.0	13.6	13.9	14.9	15.5	15.8	17.4	18.3	20.2
337.5	20.6	21.2	21.8	22.5	22.1	22.8	22.8	22.8

DEPTH: 2890 TILT: -40 RANGE: 75.0 VOS: 6046

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	20.6	20.6	20.9	21.2	21.8	22.5	22.8	24.0
22.5	24.4	24.4	24.4	24.4	24.0	24.0	24.0	24.0
45.0	23.7	23.7	23.4	23.4	23.1	23.1	23.1	22.8
67.5	22.5	22.5	21.8	21.5	21.5	21.2	20.6	19.3
90.0	19.0	17.7	17.7	17.4	16.4	16.4	15.5	15.2
112.5	14.2	13.6	13.3	13.0	11.7	11.1	10.4	8.5
135.0	8.5	9.2	9.8	10.1	10.1	10.1	10.1	10.1
157.5	9.8	9.8	10.1	10.4	6.0	5.7	5.4	5.4
180.0	5.7	5.4	5.4	6.0	5.7	5.7	5.7	5.7
202.5	6.0	5.7	5.7	5.7	5.7	5.7	5.7	5.7
225.0	5.7	5.7	5.7	5.7	5.7	6.0	5.7	6.0
247.5	6.0	6.0	5.7	6.0	6.0	5.7	6.0	6.6
270.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
292.5	7.3	7.3	8.9	9.2	10.1	12.3	15.2	15.2
315.0	15.2	15.5	15.8	16.8	17.1	17.4	17.7	18.3
337.5	18.3	18.3	18.7	19.3	19.3	19.3	19.9	20.2

DEPTH: 2890 TILT: -50 RANGE: 75.0 VOS: 6046

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	19.0	19.0	19.3	19.3	19.3	19.3	19.3	19.3
22.5	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9
45.0	19.9	19.6	19.3	19.3	19.3	19.0	19.0	19.0
67.5	18.7	18.7	18.3	18.0	17.4	16.8	16.1	16.1
90.0	16.1	15.8	15.8	15.8	15.8	15.5	15.5	15.2
112.5	15.2	14.5	13.9	13.3	12.3	11.7	11.1	10.8
135.0	10.4	10.8	11.1	11.1	11.4	11.7	12.0	11.7
157.5	12.0	12.0	12.0	6.3	6.0	6.0	6.0	6.0
180.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
202.5	6.0	5.7	5.7	5.7	5.7	6.0	6.0	6.0
225.0	6.0	6.0	6.3	6.3	6.3	6.3	6.3	6.3
247.5	6.3	6.3	6.3	6.6	6.6	6.6	6.6	6.6
270.0	7.0	7.3	7.3	7.6	7.9	7.6	7.6	7.9
292.5	7.9	8.2	11.4	12.0	12.7	13.6	16.1	16.1
315.0	16.1	16.1	16.4	16.8	17.1	17.4	17.4	17.4
337.5	17.7	17.7	18.0	18.0	18.0	18.0	18.0	18.3

DEPTH: 2890 TILT: -70 RANGE: 25.0 VOS: 6046

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	17.5	17.6	17.7	17.6	17.7	17.6	17.6	17.7
22.5	17.6	17.8	17.9	17.7	17.6	17.5	17.5	17.4
45.0	17.4	17.3	17.0	16.8	16.7	16.6	16.4	16.2
67.5	16.1	15.9	15.8	15.8	15.8	15.8	15.8	15.8
90.0	15.8	15.6	15.5	15.4	15.4	15.3	15.2	15.2
112.5	15.1	15.1	15.0	14.9	14.8	14.7	14.7	14.5
135.0	14.5	14.5	14.5	14.3	14.0	13.9	13.9	13.9
157.5	13.9	13.9	8.6	8.6	8.6	8.4	8.1	8.0
180.0	8.1	8.2	8.1	8.1	7.9	7.9	8.3	8.3
202.5	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
225.0	8.3	8.2	8.2	8.2	8.2	8.3	8.3	8.3
247.5	8.4	8.5	8.5	8.5	8.8	8.9	9.0	9.5
270.0	9.7	9.8	10.0	10.2	10.4	10.4	10.4	10.4
292.5	10.5	15.7	15.8	15.8	15.9	16.0	16.0	16.1
315.0	16.1	16.2	16.3	16.2	16.3	16.4	16.6	16.7
337.5	16.7	16.8	16.9	17.1	17.2	17.2	17.3	17.4

DEPTH: 2890 TILT: -90 RANGE: 25.0 VOS: 6046

Bearing	+ 0.0	+ 2.8	+ 5.6	+ 8.4	+11.3	+14.1	+16.9	+19.7
0.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
22.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
45.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
67.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
90.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
112.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
135.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
157.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
180.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
202.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
225.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
247.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
270.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
292.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
315.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
337.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5

AmeriGas®

America's Propane Company

May 21, 1997

Mr. Steven L. Rauzi
Oil & Gas Administrator
Arizona Geological Survey
416 W. Congress, Suite 100
Tucson, AZ 85701

Re: Permit Nos. 627, 670 and 865

Dear Mr. Rauzi,

Enclosed please find the completed Organization Report for AmeriGas Propane, L.P. which has been executed by a corporate officer.

I have also enclosed copies of two statements that were previously sent with regard to corporate history which shows the path of Cal Gas and AP Propane, Inc. to AmeriGas Propane, Inc.

In addition to these facts, as part of a corporate restructuring in 1994, AmeriGas Propane, L.P. was formed to acquire, own and operate substantially all of the assets of AmeriGas Propane, Inc. Subsequently, on April 12, 1995, AmeriGas Propane, Inc. merged with and into AmeriGas Propane, L.P.

I hope the enclosed report and corporate history provide you with the information necessary to proceed with changing the names on the above-referenced permits to AmeriGas Propane, L.P.

If you should have any questions or require any further information, please do not hesitate to contact me. Thank you for your assistance in this matter.

Sincerely,

Linda G. Brennan

Linda G. Brennan
Senior Paralegal

MAY 1997
ARIZONA GEOLOGICAL SURVEY

Enclosure

AmeriGas Propane, L.P.
P.O. Box 965, Valley Forge, PA 19482 (610) 337-7000 FAX (610) 992-3258

ORGANIZATION REPORT

Full Name of the Company, Organization, or Individual
AmeriGas Propane, L.P.

Mailing Address and Phone Number
460 N. Gulph Road, King of Prussia, PA 19406

Plan of Organization (State whether organization is a corporation, joint stock association, firm or partnership, or individual
Limited Partnership

Purpose of Organization (State type of business in which engaged)
Retail propane marketer serving residential, commerical, industrial, agricultural and engine fuel customers.

If a reorganiztion, give name and address of previous organization
AmeriGas Propane, Inc.

If a foreign corporation, give (1) State where incorporated	(2) Name and mailing address of state agent	(3) Date of permit to do business in state
AmeriGas Propane, L.P. is a Delaware limited partnership	The Prentice-Hall Corp. Sys.Inc 7037 North 11th Street Pheonix, AZ 85020	March 22, 1995

Principal Officers or Partners (if partnership) NAME	TITLE	MAILING ADDRESS
AmeriGas Propane, Inc.	General Partner	Box 965, Valley Forge, PA 19482
AmeriGas Partners, L.P.	Limited Partner	Box 965, Valley Forge, PA.19482

DIRECTORS NAME	MAILING ADDRESS
AmeriGas Propane, L.P. does not have directors as it is a partnership. See attached sheet for directors of AmeriGas Propane, Inc., as the General Partner.	

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Vice President of AmeriGas Propane, Inc. of the General Partner of AmeriGas Propane, L.P. (Company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Signature Eugene V.N. Bissell

5/20/97
Date

MAY 1997
ARIZONA GEOLOGICAL SURVEY

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Organization Report
File One Copy
Form No. 1

2/96

Mail completed form to:
Oil and Gas Program Administrator
Arizona Geological Survey
416 W. Congress., #100
Tucson, AZ 85701

05/21/1997

Directors and Officers
AmeriGas Propane, Inc.

DIRECTORS:

Thomas F. Donovan	Director
Robert C. Forney	Director
Lon R. Greenberg	Director
James W. Stratton	Director
Stephen A. Van Dyck	Director
David I. J. Wang	Director

OFFICERS:

Lon R. Greenberg	Chairman, President and CEO (Principal Executive Officer)
Eugene V. N. Bissell	Vice President - Sales and Operations
Brendan P. Bovaird	Vice President and General Counsel
Diane L. Carter	Vice President - Human Resources
R. Paul Grady	Vice President - Sales and Operations
William D. Katz	Vice President - Corporate Development
Robert H. Knauss	Vice President - Law, Associate General Counsel, Secretary, Assistant Treasurer
Charles L. Ladner	Vice President - Finance and Accounting
Gordon E. Regan, Jr.	Vice President - Purchasing and Transportation
Michael J. Cuzzolina	Treasurer, Assistant Secretary
Samuel R. Mauriello	Assistant Treasurer

MAY 1997
ARIZONA CORPORATION COMMISSION

UGI
CORPORATION

BOX 858 VALLEY FORGE, PA 19482 • 610-337-1000

May 15, 1997

Mr. Steven L. Rauzi
Arizona Geological Survey
Oil & Gas Division
416 W. Congress, Suite 100
Tucson, AZ 85701

P/N's 627
670
865

RE: AmeriGas Propane, L.P.
Permit Nos. 627, 670 and 865

Dear Mr. Rauzi:

Enclosed please find the three bond riders that change the name of the principal to AmeriGas Propane, L.P.

We trust all is in order.

Sincerely,

PAMonaco

Paul A. Monaco
Sr. Risk Analyst

PAM:mrs

cc: T. J. Bonner
L. G. Brennan (w/enc.)

Enclosures

460 NORTH GULPH ROAD, KING OF PRUSSIA, PA 19406

State of Arizona
Arizona Geological Survey
416 W. Congress, Suite 100
Tucson, Arizona 85701
(520) 770-3500

Fife Symington
Governor

Larry D. Fellows
Director and State Geologist

April 16, 1997

Ms. Linda Brennan
Amerigas
Box 858
Valley Forge, PA 19482

file 627

Dear Ms. Brennan:

Thank you for calling to advise me of your corporate changes. As a result of your call, I have enclosed several blank organization report forms and a copy of our rules for your file. R12-7-194 explains the organization report. Rules R12-7-175 through R12-7-182 provide specific regulation for injection and storage wells.

Please do not hesitate to contact me if I may be of further assistance.

Sincerely,

Steven L. Rauzi

Steven L. Rauzi
Oil & Gas Administrator

enclosures

State of Arizona
Arizona Geological Survey
845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795

Fife Symington
Governor

Larry D. Fellows
Director and State Geologist

April 10, 1995

Mr. Ray Moore
Meyer & Hendricks
P.O. Box 33449
Phoenix, Arizona 85067-3449

Re: Amerigas wells 2, 3, and 1A (State Permits 627, 670, and 865)

Dear Mr. Moore:

The information on the three wells we talked about this afternoon is enclosed (Amerigas wells 2, 3, and 1A; permits 627, 670, and 865). This includes the (1) application to drill, (2) permit to drill, (3) well completion report, and (4) performance bond for each.

The relevant rules regarding transfer of ownership include A.A.C. R12-7-103 and R12-7-178. Even though, as I noted in our conversation, I plan to be out of the office Wednesday, Thursday, and Friday of this week, please do not hesitate to call this office if I may be of any further assistance.

Sincerely,

Steven L. Rauzi

Steven L. Rauzi
Oil & Gas Program Administrator

Enclosures

PB-KBB
FENIX & SCISSON
ENGINEERING CONSTRUCTION OPERATIONS

11757 Katy Freeway #600
Houston, Texas 77079
(713) 496-5590 Telex #792539

P.O. Box 19672
Houston, Texas 77224
Telecopy (713) 496-5658

May 20, 1994

file 627

Oil and Gas Commission
State of Arizona
845 North Park Ave., #100
Tucson, AZ 85719

Attn: Mr. Steve Rauzi

Re: Amerigas Propane Inc. Wells 1-A, 2 and 3

Dear Mr. Rauzi:

Enclosed please find Sundry Reports for the Mechanical Integrity Tests and Sonar Surveys of Amerigas' Wells No. 1-A, 2 and 3. If you have any questions or require additional information, please give me a call.

Sincerely,

Tommy Smith

Tommy Smith
Sr. Engineer

cc: Mr. Gus Harbushka
Amerigas Propane Inc.
14702 West Olive Ave.
Waddell, AZ 85355

Mr. Don Flemmons
Amerigas Propane Inc.
11757 Katy Freeway, Ste. 1430
Houston, TX 77079

CONSER[illegible]
MAY 25 1994

PB-KBB
FENIX & SCISSON
ENGINEERING CONSTRUCTION OPERATIONS

11757 Katy Freeway #600
Houston, Texas 77079
(713) 496-5590 Telex #792539

P.O. Box 19672
Houston, Texas 77224
Telecopy (713) 496-5658

Oil and Gas Comission
State of Arizona
845 North Park Ave. #100
Tuscon, Arizona 85719

Attn: Mr. Steven Rauzi

Re: Amerigas Propane Inc., Wells 1-A, 2, and 3

Dear Mr. Rauzi:

Enclosed, please find Sundry Notices for the Mechanical Integrity Tests and Sonar Surveys of Amerigas' Wells No. 1-A, 2, and 3. If you have any questions or require additional information please give me a call.

Sincerely,

Mark Meece
Sr. Engineer

cc: Gus Harbushka
Amerigas Propane Inc.
14702 West Olive Ave.
Waddell, Arizona 85355

AmeriGas
America's Propane Company

627

November 20, 1990

To Whom It May Concern:

Effective November 15, 1990, AP Propane, Inc. amended its Certificate of Incorporation whereby its name was changed to AmeriGas Propane, Inc.

Very truly yours,

AMERIGAS PROPANE, INC.

By: _____
Lon R. Greenberg
Vice President

P.O. Box 965, Valley Forge, PA 19482 (215) 337-7000

AmeriGas

America's Propane Company

627

To Whom It May Concern:

This will serve to confirm the corporate history and proper corporate name of the entity operating the underground storage facility and Terminal at Bumstead (Waddell). This facility was originally constructed and operated by Cal Gas Corporation. On May 10, 1987, AP Propane, Inc. acquired all of the stock of Cal Gas Corporation and Cal Gas was merged into AP Propane, effective July 27, 1987. Thereafter, AP Propane continued to do business as Cal Gas for a period of time, but reidentified the name of its facilities nationwide to its trade name AmeriGas by the Spring of 1990. Effective November 15, 1990, AP Propane, Inc. changed its name to AmeriGas Propane, Inc. and continued to use the trade name AmeriGas. These facilities continue to be operated by AmeriGas Propane, Inc., trading as AmeriGas.

P.O. Box 965, Valley Forge, PA 19482 (215) 337-7000

PB-KBB Inc.
Subsurface Systems & Technology

11767 Katy Freeway #810
Houston, Texas 77079
P.O. Box 19672
Houston, Texas 77224
(713) 496-5590 - Telex #792539
Telecopy (713) 496-5658

July 21, 1989

Mr. Steve Rauzi
Oil & Gas Conservation Commission
State of Arizona
3110 N. 19th Ave., Ste. 190
Phoenix, AZ 85015

file P/N 627

Re: AP Propane Inc. dba Cal Gas Well No. 2 Roach-Baker
Maricopa County, Arizona Drilling Permit No. 627

Dear Mr. Rauzi:

Please find enclosed the Form No. 26, Sundry Notices and Reports on Wells, and PB-KBB Inc.'s report concerning the Mechanical Integrity Test conducted on Cal Gas' Well No. 2 Roach-Baker.

If you have any questions or require additional information, please call.

Sincerely,

Mark Cartwright

Mark Cartwright
Geologist

AZ OIL & GAS
CONSERVATION COMMISSION
JUL 26 1989

Enclosure
303008

cc: Don Flemmons, Cal Gas Sacramento
Gus Harbushka, Cal Gas Phoenix

PB-KBB Inc.
Subsurface Systems & Technology

11767 Katy Freeway #810
Houston, Texas 77079
P.O. Box 19672
Houston, Texas 77224
(713) 496-5590 - Telex #792539
Telecopy (713) 496-5658

May 31, 1989

Mr. Steve Rauzi
Arizona Oil and Gas Commission
3110 N. 19th Avenue, Suite 190
Phoenix, Arizona 85015

RE: AP Propane Inc. dba Cal Gas
Well No. 2 Roach-Baker, Maricopa County, Arizona
Permit No. 627

Dear Mr. Rauzi:

Please find enclosed the following documents concerning the Workover of Cal Gas' Well No. 2 Roach-Baker:

1. State of Arizona O&GCC - Well Completion or Recompletion Report and Well Log, Form No. 4, date 5/31/89
2. Workover Report for Well No. 2 Roach-Baker
3. Well Schematic - Storage Well. No. 2 Roach-Baker
4. Sonar and Well Testing Services - Sonar Caliper Report, dated 4/11/89
   Shows cavern capacity of 1,058,021 bbls (i.e. 44,436,882 gallons)
5. Atlas Wireline Services - 4-Arm Caliper Log, date 4/11/89
6. Atlas Wireline Services - Acoustic Cement Bond Log, dated 5/3/89
7. Atlas Wireline Services - Vertilog, dated 5/3/89

If you have any questions or require additional information, please call.

Sincerely,

Tim Moran
Project Manager

TM/sbo

Enclosures

cc: Don Flemmons, Cal Gas - Sacramento
Gus Harbushka, Cal Gas - Phoenix

Oil and Gas Conservation Commission
STATE OF ARIZONA
3110 N. 19th AVENUE, SUITE 190
PHOENIX, ARIZONA 85015
PHONE: (602) 255-5161

March 27, 1989

Mr. Tim Moran
Project Manager, PB-KBB Inc.
P. O. Box 19672
Houston, TX 77224

Re: Cal Gas Well No. 2 Roach-Baker
State Permit No. 627

Dear Mr. Moran:

We have received and reviewed your proposed remedial workover program for the referenced well dated March 7, 1989.

This letter constitutes our approval of the workover program.

Sincerely,

Steven L. Rauzi

Steven L. Rauzi
Oil & Gas Specialist

lr

RECEIVED

MAR 13 1989

O & G CONS. COMM.

PB-KBB Inc.
Subsurface Systems & Technology

11767 Katy Freeway #810
Houston, Texas 77079
P.O. Box 19672
Houston, Texas 77224
(713) 496-5590 - Telex #792539
Telecopy (713) 496-5658

March 8, 1989

Mr. Dan Brennan
Arizona Oil & Gas Commission
3110 N. 19th. Avenue
Suite 190
Phoenix, Arizona 85105

Re: AP Propane, Inc. dba Cal Gas Corp.
Well No. 2 Roach-Baker
Maricopa County, Arizona P/N 627

Dear Mr. Brennan:

Enclosed please find the Sundry Report presenting the proposed remedial workover program for Cal Gas Well No. 2 Roach-Baker.

If you have any questions or require additional information, please call.

Sincerely,

Tim Moran
Project Manager

TM:cm

Enclosure

cc: Don Flemmons, Sacramento, Cal Gas
Gus Harbushka, Phoenix Terminal, Cal Gas

CAL GAS

A Dillingham Company

RECEIVED
OCT 23 1978
O & G CONS. COMM.

October 18, 1978

Mr. W.E. Allen
Oil and Gas Conservation
Commission
State of Arizona
1645 W. Jefferson, Suite 420
Phoenix, Arizona 85007

Dear Mr. Allen:

We received your letter, dated October 12, 1978, regarding installation of a vapor knock-out and flare system in the brine discharge line adjacent to the brine ponds. As you know, there is no "off the shelf" equipment available that is specifically designed for this purpose. Therefore, we have taken additional time to research and design a flare system which we feel will do the job intended in a safe and positive manner. We have visited underground storage facilities with flare systems in order to make an evaluation. We now have a preliminary design and will forward you a copy of the drawings as soon as they are completed.

At present, the storage caverns will be at maximum capacity within the next week. We do not anticipate using the flare system until next summer when we again start storing product. Construction of the foundation and guy wire supports should begin as soon as the design is finalized. Installation of the main vapor knock-out stack is anticipated during the month of January 1979.

Mr. Hudson and myself will be visiting the Phoenix storage facility the week of October 30. If you would like to meet and discuss the design details, please advise.

Sincerely,

Thomas A. Porter

Thomas A. Porter
Manager, Terminals

TAP:msc

cc: E.O. Hudson
F.B. Burdick

California Liquid Gas Corporation
P.O. Box 28397 Sacramento, CA 95828 (916) 428-7010
Telex: 37-7322

OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
1645 WEST JEFFERSON, SUITE 420
PHOENIX, ARIZONA 85007
PHONE: (602) 271-5161

March 28, 1978

Mr. E. O. Hudson
California Liquid Gas Corporation
P.O. Box 28397
Sacramento, California 95828

Dear Mr. Hudson:

Recent developments connected with the underground storage of LPG in Arizona have caused this Commission to make a study of various safety devices which would tend to prevent any accidents from occurring during the pumping of LPG into a storage reservoir. It has been concluded that a flare system, properly installed and operated in a proper manner, would be the safest and most economical of all safety systems.

These conclusions make it necessary that this Commission request all operators of LPG storage projects within the State to install a flare system at their respective storage sites as quickly as possible. The Commission does not intend to dictate to the operator the technical design of this system, but does retain the right to approve the system selected.

Your full and early cooperation in the installation of such a safety system is expected.

Very truly yours,

W. E. Allen
Director
Enforcement Section

WEA/vb

cc - Glen W. Sorensen

ARIZONA DEPARTMENT OF HEALTH SERVICES

Division of Environmental Health Services

RAUL H. CASTRO, Governor
SUZANNE DANDOY, M.D., M.P.H., Director

June 9, 1976

RECEIVED
JUN 11 1976
O & G CONS. COMM.

Ira L. Kimes, Jr., Colonel, USAF
Commander
Department of the Air Force
Headquarters 58th Combat Support Group (TAC)
Luke Air Force Base, Arizona 85309

Dear Colonel Kimes:

This is to acknowledge receipt of your letter of May 24 and Lt. Col. Ferrell's letter of June 3, 1976 regarding salt mining operations in the vicinity of Glendale and Dysart Avenues near Luke Air Force Base.

On June 3rd, Mr. Ed Garthe of this office discussed this subject with a number of Base officials gathered together in your office.

Southwest Salt Company continues to conduct their mining operation at the northeast corner of the intersection mentioned above. Furthermore, the Arizona Oil and Gas Conservation Commission informs us that a similar operation has begun due north of and nearly contiguous to the aforementioned operation. The California Gas Company is conducting this second mining activity.

The first operation (Southwest Salt Co.) involves production of salt as its primary goal. The activity of the California Gas Company reportedly is for the purpose of creating storage capacity for propane gas. Apparently the salt solution from this operation is delivered to the Southwest Salt Company for processing.

Whether either cavity extends beneath military family housing at Luke Air Force Base has not been verified. The mining operations are licensed by the Arizona Oil and Gas Conservation Commission.

Concerning whether adequate safeguards and precautions are being taken regarding ground faults and subsidence and dangers of gas leakage or explosion, as Mr. Garthe stated on June 3rd, our Department has no authority in this area. Since the facilities are licensed by the Arizona Oil and Gas Conservation Commission, you may wish to pursue this matter directly with them.

Possible pollution of the groundwater supply is an area of responsibility of the Department of Health Services, and it is exercised by our Bureau of Water Quality Control. Dr. Ron Miller, Chief of the Bureau of Water Quality Control, informs me that surveillance of the salt mining will be

included in a groundwater monitoring program now under development. In the meantime, the Bureau of Water Quality Control will review Southwest Salt Company records and evaluate the mass balance for water and salt.

Sincerely,

R. Bruce Scott, P.E.
Assistant Director

cc: Arizona Oil and Gas Conservation Commission
Dr. Ron Miller
Mr. Ed Garthe

CAL GAS

A DILLINGHAM COMPANY

February 10, 1976

Mr. John Bannister
Oil & Gas Conservation Commission
State of Arizona
8686 North Central, Suite 186
Phoenix, Arizona 85020

Dear Mr. Bannister:

Attached we have the pleasure to send you the specifications and soil report of all the activities relative to construction of Brine Pond # 1 for our Cal Gas Terminals, Inc. near Luke Air Force Base, Arizona, at which location we have already two underground caverns for storing propane or butane.

As you can see, the soil report has been prepared by Engineers Testing Lab, Inc. which we consider as the leading organization for these kinds of projects. We did not eliminate any effort in order to come to a sound structural design based on Engineers Testing Labs' findings and numerous discussions with several liner manufacturers. The construction will be supervised, also, by Engineers Testing Lab to achieve an optimum installation.

Our choice has been on a Hypalon liner, which will be installed by the Burke people who are also the manufacturers, and this company will give us a 20-year guarantee on the liner.

In addition to this, we constructed a leakage detection system to give an early warning that nevertheless anything could be wrong and because of the pitch of the bottom, even minute leaks will be detected immediately in this way.

Sometime ago, we mailed you samples of the Hypalon and if you need more information on this type of material, we would appreciate it if you will let us know.

CALIFORNIA LIQUID GAS CORPORATION
P. O. BOX 28397, SACRAMENTO, CA 95828 / (916) 428-7010

We will discuss the project on the 12th of February with six reputable contractors in the Phoenix area and hand them our specifications in order to receive a bid.

It is our intention to have this pond installed within the next two months in order to be capable to fill our underground storage with the maximum amount of propane as the demand for standby fuel is increasing all the time.

We want to thank you for the guidance you have given us in this particular project and your cooperation is very much appreciated.

Sincerely,

Tom Van Rooy

Tom Van Rooy
Manager of Engineering

Enclosures

cc: Bill Allen

TVR/pc

RECEIVED
JAN 5 1976
O & G CONS. COMM.

CAL GAS

A DILLINGHAM COMPANY

December 30, 1975

Attention: Messrs. John Bannister
Bill Allen
Oil & Gas Conservation Commission
State of Arizona
8686 North Central, Suite 186
Phoenix, Arizona 85020

Gentlemen:

Thank you very much for the courtesies you extended Cal Gas at our meeting on December 17, 1975. Our time schedule for the construction of the brine pond is very critical and your willingness to help in getting approval for this project is extremely appreciated.

Enclosed are two samples of the liner which we will use for the pond membrane. One sample is a glued seam that we will use to piece the sections together. We will also forward the plans, specifications, soil testing data and the request for approval by the third week in January.

We, at Cal Gas, thank you again for your help and wish you and your company a happy and prosperous new year.

Sincerely,

Bill Aaberg

Bill Aaberg
Civil Engineer

Enclosures

BA/pc

CALIFORNIA LIQUID GAS CORPORATION
P. O. BOX 28397, SACRAMENTO, CA 95828 / (916) 428-7010

February 17, 1976

Mr. Fritz Ryan
Arizona State Land Department
Natural Resources Conservation Division
1624 W. Adams
Phoenix, AZ 85007

Dear Mr. Ryan:

Here is the information on the proposed California Liquid Gas Corporation's proposed Brine Pond that I recently discussed with you.

We have samples of the Hypalon Liner that will be used for lining this pit if you wish to inspect this material.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/sl

Encls.

February 17, 1976

Mr. Jim Scanlan
Environmental Health Services
Bureau of Water Quality Control
1740 W. Adams
Phoenix, AZ 85007

Dear Mr. Scanlan:

Here is the information on the proposed California Liquid Gas Corporation's proposed Brine Pond that I recently discussed with you.

We have samples of the Hypalon Liner that will be used for lining this pit if you wish to inspect this material.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/sl

Encls.

February 17, 1976

Mr. Tom Clark
Arizona Water Company
Suite 800
222 N. Central
Phoenix, AZ 85004

Dear Mr. Clark:

Here is the information on the proposed California Liquid Gas Corporation's proposed Brine Pond that I recently discussed with you.

We have samples of the Hypalon Liner that will be used for lining this pit if you wish to inspect this material.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/sl

Encls.

February 17, 1976

Mr. Glen Sorenson
California Liquid Gas Corporation
8401 Gerber Road
Sacramento, CA 95828

RE: Proposed Brine Pond
Bumstead Storage Project
Maricopa County, AZ

Dear Mr. Sorenson:

We have reviewed Engineers Testing Laboratories, Inc.'s Soil Engineering Reports and recommendations regarding the construction of this pond and also your detailed plan showing the construction methods and materials to be used in constructing the subject brine pond.

It is my opinion that you have taken all necessary precautions to protect both the surface area of lands adjacent to this pond and have incorporated adequate safeguards to protect the ground waters underlying this pond. This letter shall be considered as your authority to commence construction of the subject pond.

We will, of course, make periodic inspections during construction and any changes from the proposed plans that you may deem necessary to make during construction must be brought to the attention of this Commission for approval.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA:sl

cc: A. (Tom) Rooy
William T. Aaburg
Tom Clark - Arizona Water Company
Jim Scanlan - Environmental Health Services
Fritz Ryan - State Land Department

OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
4515 NORTH 7TH AVE.
PHOENIX, ARIZONA 85013
PHONE: (602) 271-5161

April 11, 1975

Mr. James Goff
Division of Environmental Health
Arizona Dept. of Health Services
State Health Building
Phoenix, Arizona 85007

Dear Jim:

I have spoken to you and your office before concerning the salt mining project of Southwest Salt Company in the vicinity of Glendale Avenue and Dysart Road near Luke Field. As you are aware, monitoring of the ponding activities in this area was turned over to your division some time ago.

This Commission has under its jurisdiction the activities of the California Liquid Gas Corporation in creating underground storage in the area and during our frequent visits there we have noticed with some alarm increasing evidence of pond leakage from Southwest Salt Company's operation.

I am calling this to your attention with the thought you might wish to more closely monitor this operation in order to prevent contamination of underlying fresh water aquifers. If we can help you in any way, please do not hesitate to ask.

Sincerely,

John Bannister
Executive Secretary

JB/vb

January 23, 1975

Ms. Kay Waller
Petro-Well Libraries Inc.
150 Security Life Building
1616 Glenarm Place
Denver, Colorado 80202

Re: December - January Current File Material

Dear Kay:

Enclosed you will find the following current material for December 1974 through January 1975.

Data - Completion and miscellaneous reports on Zoller & Danneberg Navajo E-2X, File 616

Data - Completion and miscellaneous reports on California Liquid Gas Corp. Storage Well No. 2, File 627
Logs - Two Comp. Formation Density Log and Gamma Ray-Neutron Log

Data - Completion and miscellaneous reports on Fee Oil & Gas LTD Navajo #1, File 628
Logs - F-Log, Dual Induction-Laterolog, Comp. Neutron Formation Density

Very truly yours,

Rhema Brandt
Secretary to W. E. Allen
Director, Enforcement Section

/rlb

Encs.

September 4, 1974

Mrs. Jo Ratcliff
Four Corners Sample Cut Association
P. O. Box 899
Farmington, New Mexico 87401

Dear Mrs. Ratcliff:

The following permit has been issued since August 15, 1974.

California Liquid Gas Corporation
Storage Well No. 2
Maricopa County, SW/NW Sec 2-T2N-R1W
Permit No. 627

Very truly yours,

Rhema Brandt
Secretary to W. E. Allen,
Director, Enforcement Section

/rlb

September 4, 1974

Mr. H. H. Holloway
Fenix & Scisson, Inc.
P. O. Box 15609
Tulsa, Oklahoma 74115

Re: California Liquid Gas Corporation
Storage Well No. 2
Maricopa Co., SW/NW Sec 2-T2N-R1W
Permit No. 627

Dear Mr. Holloway:

Enclosed please find Receipt No. 0179 covering the $25.00 filing fee, a copy of your approved bond, approved application to drill and permit to drill No. 627.

On future applications, please plot the specific location on the reverse side of Form 3, Application for Permit to Drill.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb

Encs.

FENIX & SCISSON, INC.
5805 EAST FIFTEENTH STREET
TULSA, OKLAHOMA

PLEASE REPLY TO:
P. O. Box 15609
TULSA, OKLAHOMA 74115

PHONE (918) 835-9471
TWX No. (910) 845-2108
CABLE ADDRESS: FENSON TULSA

August 30, 1974

Mr. W. E. Allen, Director
Enforcement Section
Oil and Gas Conservation Commission
State of Arizona
4515 North 7th Avenue
Phoenix, Arizona 85013

Dear Mr. Allen:

In response to your letter of August 27 I am returning the performance bond form to which we have added the description of the location of the No. 2 storage well.

If you require anything further, please let me know.

Very truly yours,

H. H. Holloway

HHH:wi
Encl.

RECEIVED
SEP 03 1974
O & G CONS. COMM.

August 27, 1974

Mr. H. H. Holloway
Fenix & Scisson, Inc.
P. O. Box 15609
Tulsa, Oklahoma 74115

Dear Mr. Holloway:

We are returning the attached performance bond form. Please insert the legal description of the No. 2 storage well on this form and return to this office.

Should you be ready to spud this well before this form is returned to this office, you may have Gene Alleman call for verbal permission which will be granted.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb

Enc.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS

Bond Serial No. 2222218

That we: CALIFORNIA LIQUID GAS CORPORATION

of the County of SACRAMENTO in the State of SACRAMENTO

as principal, and Safeco Insurance Company of America

of Washington

AUTHORIZED TO DO BUSINESS WITHIN the State of Arizona.

as surety, are held and firmly bound unto the State of Arizona and the Oil and Gas Conservation Commission, hereinafter referred to as the "Commission", in the penal sum of Five thousand and no/100ths ($5,000.00) lawful money of the United States, for which payment, well and truly to be made, we bind ourselves, and each of us, and each of our heirs, executors, administrators or successors, and assigns jointly and severally, firmly by these presents.

The conditions of this obligation are that, whereas the above bounden principal proposes to drill a well or wells for oil, gas or stratigraphic purposes in and upon the following described land situated within the State, to-wit:

2440.0' FNL & 677.64' FWL Sec. 2, T2N, R1W, G&SRB&M, Maricopa County, Arizona
Storage Well No. 2 at the Cal Gas site near Glendale, Arizona

(May be used as blanket bond or for single well)

NOW, THEREFORE, if the above bounden principal shall comply with all the provisions of the Laws of this State and the rules, regulations and orders of the Commission, especially with reference to the requirements of A.R.S. § 27-516, providing for the proper drilling, casing and plugging of said well or wells, and filing with the Oil and Gas Conservation Commission all notices and records required by said Commission, then in the event said well or wells do not produce oil or gas in commercial quantities, or cease to produce oil or gas in commercial quantites, this obligation is void; otherwise it shall remain in full force and effect.

Whenever the principal shall be, and declared by the Oil and Gas Conservation Commission in violation of the Laws of this State and the rules, regulations and orders of the Commission, the surety shall promptly:

1. Remedy the violation by its own efforts, or
2. Obtain a bid or bids for submission to the Commission to remedy the violation, and upon determination by the Commission and the Surety of the lowest responsible bidder, arrange for a contract between such bidder and the Commission, and make available as work progresses sufficient funds to pay the cost of remedying the violation; but not exceeding, including other costs and damages for which the surety may be liable hereunder, the amount set forth in the first paragraph hereof.

Liability under this bond may not be terminated without written permission of this Commission.

WITNESS our hands and seals, this 24th day of July, 1974

CALIFORNIA LIQUID GAS CORPORATION

Vice President

Principal

WITNESS our hands and seals this 24th day of July, 1974

RECEIVED
AUG 27 1974
O & G CONS. COMM.

Safeco Insurance Company of America

Surety

Michael M. Mattingly

Surety/Resident Arizona Agent (if issued in a state other than Arizona)

Attorney-in-fact

(If the principal is a corporation, the bond should be executed by its duly authorized officers, with the seal of the corporation affixed. When principal or surety executes this bond by agent, power of attorney or other evidence of authority must accompany the bond.)

Approved Date 9-4-74

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSSION

By:

Permit No. 627

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSSION

Bond

File Two Copies

Form No. 2

COUNTERSIGNATURE RIDER

In accordance with the laws of the State of Arizona, it is certified that the attached countersignature is the signature of the company's authorized agent in and for the State of Arizona.

All terms and conditions of the bond to which this rider is attached remain unchanged.

SAFECO INSURANCE COMPANY OF AMERICA

IN WITNESS WHEREOF, GENERAL INSURANCE COMPANY OF AMERICA has caused this rider to be signed by its duly authorized attorney-in-fact and countersigned by its authorized resident agent.

Countersigned by

Gilbert Katt
Authorized Agent

Michael A. Mattingly
Attorney-in-Fact

BSC-130 9/65

SAFECO INSURANCE COMPANY OF AMERICA
GENERAL INSURANCE COMPANY OF AMERICA

LIMITED POWER OF ATTORNEY

No. 3133

KNOW ALL MEN BY THESE PRESENTS:

That **SAFECO** Insurance Company of America and General Insurance Company of America, each a Washington corporation, does each hereby appoint

----------MICHAEL M. MATTINGLY, Sacramento, California----------

its true and lawful attorney(s)-in-fact, with full authority to execute on its behalf fidelity and surety bonds or undertakings and other documents of a similar character issued in the course of its business, and to bind the respective company thereby in amounts or penalties not exceeding the sum

of TWO HUNDRED FIFTY THOUSAND AND NO/100--------DOLLARS ($ 250,000.00)

IN WITNESS WHEREOF, SAFECO Insurance Company of America and General Insurance Company of America have each executed and attested these presents

this 8th day August, 19 72

W. D. HAMMERSLA, SECRETARY

GORDON H. SWEANY, PRESIDENT

CERTIFICATE

Extract from Article VI, Section 12, of the By-Laws of **SAFECO** Insurance Company of America and of General Insurance Company of America:

"Article VI, Section 12, – FIDELITY AND SURETY BONDS . . . the President, any Vice President, and the Secretary shall each have authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute on behalf of the company fidelity and surety bonds and other documents of similar character issued by the company in the course of its business . . . On any instrument making or evidencing such appointment, the signatures may be affixed by facsimile. On any instrument conferring such authority or on any bond or undertaking of the company, the seal, or a facsimile thereof, may be impressed or affixed or in any other manner reproduced; provided, however, that the seal shall not be necessary to the validity of any such instrument or undertaking."

Extract from a Resolution of the Board of Directors of **SAFECO** Insurance Company of America and of General Insurance Company of America adopted July 28, 1970:

"On any certificate executed by the Secretary or an assistant secretary of the company setting out,
(i) The provisions of Article VI, Section 12 of the By-Laws, and
(ii) A copy of the power-of-attorney appointment, executed pursuant thereto, and
(iii) Certifying that said power-of-attorney appointment is in full force and effect,
the signature of the certifying officer may be by facsimile, and the seal of the company may be a facsimile thereof."

I, William Hammersla, Vice-President and Secretary of **SAFECO** Insurance Company of America and of General Insurance Company of America, do hereby certify that the foregoing extracts of the By-Laws and of a Resolution of the Board of Directors of these corporations, and of a power-of-attorney issued pursuant thereto, are true and correct, and that the By-Laws, the Resolution and the power-of-attorney are still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set may hand and affixed the seal of said corporations

this 24th day of July, 19 74.

SAFECO INSURANCE COMPANY OF AMERICA CORPORATE SEAL 1953 STATE OF WASHINGTON

GENERAL INSURANCE COMPANY OF AMERICA CORPORATE SEAL 1923 State of Washington

RECEIVED
AUG 27 1974
O & G CONS. COMM.

W. D. HAMMERSLA, SECRETARY

S-975 R3 4/72

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SAFECO®

SURETY RIDER

SAFECO INSURANCE COMPANY OF AMERICA
GENERAL INSURANCE COMPANY OF AMERICA
FIRST NATIONAL INSURANCE COMPANY OF AMERICA
HOME OFFICE: SAFECO PLAZA
SEATTLE, WASHINGTON 98185

To be attached to and form a part of

Bond No. 2222218

Type of Bond: License & Permit - Gas Drilling Bond

dated / effective September 1, 1974
(MONTH-DAY-YEAR)

executed by California Liquid Gas Corporation, as Principal,
(PRINCIPAL)

and by SAFECO INSURANCE COMPANY OF AMERICA, as Surety,

in favor of State of Arizona
(OBLIGEE)

in consideration of the mutual agreements herein contained the Principal and the Surety hereby consent to changing

The Name of Principal

From: California Liquid Gas Corporation

To: AmeriGas Propane, L.P.

Nothing herein contained shall vary, alter or extend any provision or condition of this bond except as herein expressly stated.

This rider is effective May 6, 1997
(MONTH-DAY-YEAR)

Signed and Sealed May 13, 1997
(MONTH-DAY-YEAR)

AmeriGas Propane, L.P.
AmeriGas Propane, Inc., Its General Partner
(PRINCIPAL)

By: Robert H. Knauss
(PRINCIPAL) Robert H. Knauss, Vice President

SAFECO INSURANCE COMPANY OF AMERICA

By: Darella E. White
(ATTORNEY-IN-FACT)

Darella E. White

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S-443/EP 3/90

SAFECO®

POWER OF ATTORNEY

SAFECO INSURANCE COMPANY OF AMERICA
GENERAL INSURANCE COMPANY OF AMERICA
HOME OFFICE: SAFECO PLAZA
SEATTLE, WASHINGTON 98185

No. 5014

KNOW ALL BY THESE PRESENTS:

That **SAFECO INSURANCE COMPANY OF AMERICA** and **GENERAL INSURANCE COMPANY OF AMERICA**, each a Washington corporation, does each hereby appoint
*****DARELLA E. WHITE; DONALD J. BAILEY; DAMON BENDESKY, Philadelphia, Pennsylvania**********

its true and lawful attorney(s)-in-fact, with full authority to execute on its behalf fidelity and surety bonds or undertakings and other documents of a similar character issued in the course of its business, and to bind the respective company thereby.

IN WITNESS WHEREOF, SAFECO INSURANCE COMPANY OF AMERICA and **GENERAL INSURANCE COMPANY OF AMERICA** have each executed and attested these presents

this 22nd day of March, 19 95.

CERTIFICATE

Extract from the By-Laws of **SAFECO INSURANCE COMPANY OF AMERICA**
and of **GENERAL INSURANCE COMPANY OF AMERICA:**

"Article V, Section 13. - FIDELITY AND SURETY BONDS . . . the President, any Vice President, the Secretary, and any Assistant Vice President appointed for that purpose by the officer in charge of surety operations, shall each have authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute on behalf of the company fidelity and surety bonds and other documents of similar character issued by the company in the course of its business . . . On any instrument making or evidencing such appointment, the signatures may be affixed by facsimile. On any instrument conferring such authority or on any bond or undertaking of the company, the seal, or a facsimile thereof, may be impressed or affixed or in any other manner reproduced; provided, however, that the seal shall not be necessary to the validity of any such instrument or undertaking."

Extract from a Resolution of the Board of Directors of **SAFECO INSURANCE COMPANY OF AMERICA**
and of **GENERAL INSURANCE COMPANY OF AMERICA** adopted July 28, 1970.

"On any certificate executed by the Secretary or an assistant secretary of the Company setting out,
(i) The provisions of Article V, Section 13 of the By-Laws, and
(ii) A copy of the power-of-attorney appointment, executed pursuant thereto, and
(iii) Certifying that said power-of-attorney appointment is in full force and effect,
the signature of the certifying officer may be by facsimile, and the seal of the Company may be a facsimile thereof."

I, R. A. Pierson, Secretary of **SAFECO INSURANCE COMPANY OF AMERICA** and of **GENERAL INSURANCE COMPANY OF AMERICA**, do hereby certify that the foregoing extracts of the By-Laws and of a Resolution of the Board of Directors of these corporations, and of a Power of Attorney issued pursuant thereto, are true and correct, and that both the By-Laws, the Resolution and the Power of Attorney are still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of said corporation

this 13th day of May, 19 97.

S-974/EP 1/93

® Registered trademark of SAFECO Corporation.

W P

FENIX & SCISSON, INC.
5805 EAST FIFTEENTH STREET
TULSA, OKLAHOMA

PLEASE REPLY TO:
P. O. Box 15609
TULSA, OKLAHOMA 74115

PHONE (918) 835-9471
TWX No. (910) 845-2108
CABLE ADDRESS: FENSON TULSA

August 26, 1974

Mr. John Bannister
Oil and Gas Conservation Commission
State of Arizona
4515 North 7th Avenue
Phoenix, Arizona 85013

Dear John:

We are preparing to drill a second storage well for the California Liquid Gas Corporation at their site approximately 7 miles west of Glendale, Arizona in Maricopa County. In this regard, I am attaching the following: two copies of the Application for Permit to Drill, a $5,000 bond, our check in the amount of $25, and certified copies of the plat. If you need any additional information, please let me know.

Sincerely yours,

H. H. Holloway

HHH:wi
Encls.

RECEIVED
AUG 27 1974
O & G CONS. COMM.

THE ATTACHED CHECK IS IN FULL SETTLEMENT OF ACCOUNT SHOWN HEREIN ● DETACH BEFORE DEPOSITING

JOB NO.	DATE	DESCRIPTION	AMOUNT	DISCOUNT	NET AMOUNT
	8/26/74	Application Fee			25.00

RECEIVED
AUG 27 1974
O & G CONS. COMM.

FENIX & SCISSON, INC.
P. O. BOX 15609
TULSA, OKLAHOMA 74115

№ 4102 -3