

### **American Samoa Power Authority**

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ISSUANCE DATE: March 25, 2025

RFP NO.: RFP NO. ASPA25.003 – Well Drilling Services

SUBJECT: Addendum No. 1

The American Samoa Power Authority hereby issues Addendum No. 1 to amend Request for Proposals (RFP) requirements. This addendum is issued pursuant to the conditions of the RFP documents and is hereby made part of the RFP. The addendum serves to clarify, revise, and supersede information contained in the RFP. The Offeror must acknowledge receipt of this addendum in the appropriate space provided in the Addendum Form. Failure to do so may subject the Offeror to disqualification.

1. The closing date has been extended as follows. Submissions received prior to the closing date and time will not be opened until the closing date listed below:

Closing Date and Time: Friday, April 11, 2025

2. Responses to queries received for this tender are included beginning at page 2.

Should you have any questions or need clarification, please call me at (684) 699-3057 or procurement@aspower.com.

Flenee Leotele Togafau Procurement Manager

Please sign and date below to acknowledge receiving Addendum 1. You may return this document via email at <a href="mailto:procurement@aspower.com">procurement@aspower.com</a>, or the ASPA Procurement Office.

ACH	KNOWLEDGEMENT O	F RECEIVING	ADDENDUM 1	
Received by		, this	day of	2025.
Company	Titl	le		_
Fax No	Email Address			

	RFP NO. ASPA25.003 - WELL DRILLING SERVICES				
#	Question	Answer:			
1	In regards to the requirement in the scope of works "The company must have a registered driller in the United States". Would you accet a suitably qualified contractor based in New Zealand? Drillers would have certification equivalent to United States (NZ cert 4 in drilling plus NZDF registered).	Please go ahead and apply and we will seek approval from our grantor.			
2	Would the well drilling contractor be required to supply and install the permanent well pumps, riser and wellheads? If so, do you have a standard detail?	The well contractor is required to install the casings for the wells, the neat grout seal and size the pump for the well as well as any materials required for the well construction itself. The permanent pumps, riser and well heads is handled by ASPA water operations and they will install that part to connect the well to the system. For the materials needed for the well, the contractor and Engineer can work together to procure these materials.			
3	Do you have a standard ASPA construction detail of the sanitary cement seal? What would be the maximum depth of this seal?	EPA requires a minimum 100ft. of cement seal. However some wells are much shallower e.g. 120 ft. total depth, so it is the call of the engineer and contractor to have less than that.			
4	Is the drilling contractor required to build a concrete run-off pad at each well? If so, do you have a standard detail please?	No. The local drilling crew will organize and construct this.			
5	When does ASPA sugges the contract would be awarded and what time frame do you expect it completed?	The contract will be awarded as soon as the bids are received (within 30 days). The work must be completed before December 2026. The requirement is to drill as many wells as possible before the end date.			
6	Can the two deepr wells #12 and #26 be alternatively completed with 6" casing to their final depth?	Yes.			
7	Will ASPA engiener specify the pumping test depth, rate and duration? Or do we need to sub-contract a consultant who can evaluate this?	ASPA engineer will do this.			
8	Do envisiage a consultant to be engaged by us to present the yield recommendation report?	Include this in the biddding proposal as an option for ASPA to select. The consultant providing the yield reccomendation report will also be responsible for applying for the Permit to Operate (PTO) with the local EPA and address any questions or concerns they have. ASPA Engineer will assist with this and advise.			
9	Is it possible to supply historic well logs from any nearby wells?	ASPA will provide available logs, however, logs for wells are only available from 2014 onwards.			

# ASILI WELL #21

Well Number: 21_ SWL: 119' Sea Level: 118'_						
Address: Depth of Completed Well: 142'						
Type of work: <u>Well Drilling</u> Depth first water: 137'						
Drill Method: <u>Air rotary</u> Casing size: _10"_						
*Borehole Construction						
Dia. From: 0 to 18': 14" hole From: 18' to 78': 12" Hole						
Hole Dia. From: 78 to 142: 8-1/8" Hole						
Well casing: 10" Total: 80' well casing with Mitsubishi shoe						
Sealing material: <u>Neat cement</u> From: <u>78'</u> to <u>65'</u>						
Backfill From: 65' up to '18						
*Cement use						
Cement from 78' up to 65' - 10 bags used. (Push Plug)						
Backfill from 65'- 18' - 12 bags						
Cement upper seal from 18' to 0' - 14 bags used.						
Total bags of cement used: <u>36 bags.</u>						
*Drilling						
Formations:						
0 - 8 Topsoil brown clay with small boulders.						
8 - 12 Broken Basalt (Dark).						
12 - 45 Decomposed Basalt with Brown Clay (Soft.						
45 - 65 Hard Broken Basalt .						
65 - 90 Hard Gray Basalt.						
90 - 120 Firm & Brown Semi-Decomposed Basalt.						
120 - 137 Red Cinder						
137 - 142 Porous Broken Basalt (Dark) / Water						
Air Test:50 GPM						
Test Pump:						
PWL:						
Total Dissolved Solids: 147 PPM						

**Drillers Names: Jim Gunn** 

Trainees: Henry Salesa, Aliielua Peretiso, Jeff Tatupu, Ietitaia Levi, &

Leuatea Faiai

Date drilling started: *October 31*, 2023 Date drilling ended: *November 24*, 2023

#### WELL LOG

**NAME**: Malaeimi Well 1

120'

Well Number: 1 Sea Level: 176' **SWL**: 93.3

Address:

Type of work: New Well **Depth of Completed Well:** 265 ft.

Depth First Water: 50' Second Water: 125' **Drill Method**: Air Rotary

**Proposed Use**: Community **Third Water:** 

265'

Casing Used 8" from + 1 to 119'

**Bore Hole Construction:** Sealing Material: Cement

From 0 To 119' Number of Sacks Used 48 Dia. From To

12" 120'

> Test Pump: GPM draw down 75 drill steel at 220' Air test 2hrs. Air test 100 drill steel at 265' 2hrs.

hours

Well Log

8"

Material	From	To	SWL
Clay brown	0	50'	50'
Rock broken gray/brown	50'	110'	
Rock hard gray/ brown some red	110'	160'	93.3
Rock Broken gray/brown/red	160'	265'	93.3

Rodney Erler Date Started: 9/15/14 General Manager Date Ended: 9/25/14

#### WELL LOG

NAME: Malaeimi Well 2

Well Number: 2 SWL: 176' Sea Level: 210'

Address:

Type of work: New Well Depth of Completed Well: 265 ft.

Drill Method: Air Rotary Depth First Water: 60' Second Water: 210'

**Casing Used** 8" from 0 to 103'

**Bore Hole Construction:** Sealing Material: Cement

Dia. From 0 To 102' Number of Sacks Used 45

12" 0 104' 8" 104' 265' **Test Pump: GPM draw down hours** 

Well Log

Material	From	То	SWL
Clay and boulders brown	0	30'	
Rock broken gray/brown	30'	60'	
Rock hard /inter laid with ceders gray/red drown	60'	210	
Rock Broken gray/brown	210'	265'	176'

Rodney Erler Date Started: 8/8/14 General Manager Date Ended: 9/12/14

#### **WELL LOG**

**NAME**: Malaeimi Well 3

Well Number: 3 SWL: - 150 ft. Sea Level:: 175 ft.

**Address: Behind ACE Hardware** Depth of Completed Well: 220 ft.

**Type of work**: Community Depth first water 200ft. SWL 150ft.

**Drill Method**: Air Rotary **Casing size 8"** from + 2 ft. To 100 ft,

Bore Hole Construction: Sealing Material used Cement

Dia. From To From 0 To 100 # of Sacks Used 55

12 0 100 8 100 220

Test Pump: GPM \_\_\_\_\_draw down\_\_\_\_ **Formations:** From To Clay brown 0 15 35 Clay gray 15 Clay & Rock brown 35 85 Rock brown 85 125 Rock brown broken 125 165 Rock Red/Brown broken 165 200 Rock broke gray 200 220

Drillers Name: Rodney Erler

Date Started 11/13/14

Date Ended 11/21/14

#### WELL LOG

**NAME**: Malaeloa Well 15

Well Number: 15

**SWL**: 141 Sea Level:: 190

Address: Malaeloa

Depth of Completed Well: 245'

**Type of work**: Community

Depth first water 210

**Drill Method**: Air Rotary

**Casing** size 8" from + 2' To 145'

**Bore Hole Construction:** 

Sealing Material used cement

Dia. From To

From 0 To 145 # of Sacks Used 75

12" 0 145' 8" 145' 245'

Air Test 200 GPM drill steel @ 245'

for 2 hrs.

### **Formations:**

From To

Clay & large gravel brown/gray

0 15

Broken rock gray/brown

Sand cemented brown/gray & some red

18 45 Rock hard gray

45 60 Cinders red

75

Sand cemented brown/red

75 105

Gravel gray/brown

105 110

Clay brown brown/red

110 115 Sand cemented brown/gray some red

115 125

Cinder cemented red/gray

125 150

Sand cemented gray/brown some red

150 180

Rock broken gray/brown

180 195 Rock gray hard 195

Sand cemented red/brown/gray

210 220 Rock gray hard 220 235

Sand cemented brown/red/gray

235 245

Driller	S		
Name:			

Date Started 3/31/15 Date completed 4/13/15

Date :4/13/15 Drill Rig moved off well

site..

### **WELL LOG**

NAME: Nu'uuli Well 24

Well Number: 24 SWL: 32.5 Sea Level:: 106'

Depth of Completed Well: 160'

**Type of work**: Community Depth first water 22' SWL 22ft.

**Drill Method**: Air rotary **Casing size** from 8" To 50'

Bore Hole Construction:

Dia. From To
12" 0 50'
8' 50 160'

Sealing Material used cement
From 0 To 50 # of Sacks Used 28
Test Pump: GPM 75 air test

Formations:	From	To
Clay/boulders brown/ gray	0	20
Claystone gray	22	22
Claystone brown broken	22	25
Sand cemented brown	25	60
Sand cemented gray/red/brown brown broken	60	64
Sand cemented gray	64	80
Sand cemented broken gray/brown/red	80	83
Sand cement gray	83	155
Sand cemented brown	155	160

Drillers Name Rodney Erler,

Date Started 6/1/15Date Ended 6/10/15

#### WELL LOG

NAME: Malaeimi Well 4

Well Number: 4 SWL: 141 ft. Sea Level::220 ft.

**Address:** Maleaimi Well # 4 **Depth of Completed Well**: 271 ft.

**Type of work**: New construction **Depth first water:** 30ft SWL 30 ft.

**Drill Method**: Air Rotary **Casing size: 8" from** +1 ft. **To** 88 ft.

**Bore Hole Construction:** Sealing Material: cement

Dia. From To From: 0 to: 88ft. Number of bags used: 70

12 0 88 ft. 8 88 ft. 271 ft.

Air Test: GPM 300 drill pipe was 270 ft.

### **Test Pump:**

Formations:	From		<b>SWL</b>	
Clay rock brown	0 ft.	12 ft.		
Clay brown	12 ft.	30 ft.		
Rock brown broken	30 ft.	45 ft.	30 ft.	
Rock gray brown	45 ft.	60 ft.		
Rock brown	60 ft.	65ft		
Rock brown broken caving	65ft	75ft		
Rock gray/brown	75 ft.	125 ft.		
Cemented sand brown	125 ft.	165 ft.		
Rock red/ brown	165 ft.	185 ft.		
Rock gray/b brown	185 ft.	195 ft.		
Rock brown/ gray broken	195 ft.	271 ft.	114 ft.	

Drillers Names: Rodney Erler,

**Drill trainees:** Jeff Tatupu drilled 45 ft. Levi Ueli drilled to 226 ft.

**Date drilling started:** 5/13/16 **Date drilling ended:** 7-13-16

### **WELL LOG**

NAME: Malaeimi Well 5

Well Number: 5 SWL: 75.5 ft. Sea Level: 220 ft.

Address: Malaeimi Well # 5 Depth of Completed Well: 270 ft.

**Type of work**: New Construction Depth first water: 200 ft. SWL: 161 ft.

**Drill Method**: Air Rotary **Casing size: 8"** from + 2ft. To 100ft.

Bore Hole Construction: Sealing Material used cement

Dia. From: 0 To 100 ft. # of Sacks Used: 44

12" o 105ft. 8" 105 270 ft.

Air Test: GPM 50 drill pipe at 250ft.

### **Test Pump**

Formations:	From	To	SWL
Boulder/clay brown/ gray	0	8	
Clay brown	8	24	
Rock/clay brown	24	55	
Rock/ broken gray	55	80	
Rock gray	80	200	
Rock fractured gray/red	200	270	161

Drillers Name: Rodney Erler drilled 100 ft.
Drill trainees: Levi Ueli drilled 170 ft.

Date Started 7-29-16 Date Ended 8-17-16

Name: Faleniu Well 6

Well number: 6 SWL: -298. Sea level: -306

Address: Faleniu (Apiolefaga) Depth of completed well: -348 ft.

Type of work: Community Depth first water: -270 SWL -298

**Drill method**: Air rotary **Casing size 8"** from + 2.5 ft. to -102.5 ft,

**Bore hole construction:** Sealing material used: Cement only

**Dia.** From To From 0 to 120 # of sacks used: 35

12 0 -14 8 +2.5 -102.5

Test pump: GPM \_\_\_\_\_draw down\_\_\_\_

Formations:	From	To
Alluvial clay brown/ trash/ small boulders	0	15
Dry grey alluvial and talus fill (gritty with small rocks)	15	30
Grey brown basalt (hard rock)	30	150
Brown grey red basalt (hard rock)	150	180
Grey basalt (hard rock)	180	300
Grey basalt with bits of red (hard rock)	300	340

**Notes:** First encountered water at -270 feet. Water slowly backed off until -290 feet and then started pushing out more water again. Water flow increased significantly at -300 feet with steady flow to TD -348'.

**Drillers name:** Rodney Erler

Date started:

**Date ended:** 11/10/16

# ILI'ILI WELL #74

Well Number: <u>74</u> SWL: <u>112.6'</u> Sea Level: <u>120' approximatel</u>
Address: <u>Ili'ili Golf Course</u> Depth of Completed Well: <u>142'</u>
Type of work: <u>Well Drilling</u> Depth first water: <u>139'</u>
Drill Method: <u>Air rotary</u> Casing size: <u>8"</u>
*Borehole Construction
Hole Diameter.
From: <u>0</u> to: <u>19'-12" hole</u> From: <u>19'</u> to: <u>67'</u> - 10" Hole
Hole Dia. From: 'to: '-" Hole
Well casing: +2'to 118' Total: 'of" well casing with Mitsubishi shoe
Sealing material: <u>Neat cement</u> From: 'to 'with push plugs
Backfill From:
*Cement use
Cement from 'up to '- bags used. (Push Plug)
Backfill from '- '- bags
Cement upper seal from 'to ' - bags used.
Other from -' up to Ground - bag of 3/8" Bentonite Chips
Total bags of cement used: 36 bags.
*Drilling
Formations:
0 - 41 Topsoil Small boulders
41 - 82 Medium Gray Basalt.
82 - 85 Semi-Broken Rock.
85 - 101 Grey Basalt with weathered seams
101 - 104 Semi-Broken Rock
104 - 117 Gray Basalt Weathered Seams.
117 - 139 Gray weathered Basalt, Some broken. H20
139 - 142 White coral with seashells
Air Test: 50 GPM
Test Pump:
105t 1 mmp

**PWL:** 

**Total Dissolved Solids: 820 PPM** 

**Drillers Names: Jim Gunn** 

Trainees: Henry Salesa, Aliielua Peretiso, Jeff Tatupu, Ietitaia Levi, &

Leuatea Faiai

Date drilling started: April 14, 2024 Date drilling ended: May 28,

2024

### Malaeimi WELL #1

It says Malaeimi Well 1 but this is labeled 21, which is it???

Well Number: <u>21</u> SWL: <u>119'</u> Sea Level: <u>118'</u>

Address: \_\_\_\_ Depth of Completed Well: 263'

Type of work: \_\_Well Drilling \_\_\_ Depth first water: \_137'\_\_

Drill Method: <u>Air rotary</u> Casing size: 10"\_

### \*Borehole Construction

Dia. From: 0 to 18': 14" hole From: 18' to 78': 12" Hole

Hole Dia. From: 78 to 142: 8-1/8" Hole

Well casing: 10" Total: 80' well casing with Mitsubishi shoe

Sealing material: <u>Neat cement</u> From: <u>78'</u> to <u>65'</u>

Backfill From: 65' up to '18

### \*Cement use

Cement from 78' up to 65' - 10 bags used. (Push Plug)

Backfill from 65'- 18' - 12 bags

Cement upper seal from 18' to 0' - 14 bags used.

Total bags of cement used: 36 bags.

# \*Drilling

### **Formations:**

- 0 8 Topsoil brown clay with small boulders.
- 8 12 Broken Basalt (Dark).
- 12 45 Decomposed Basalt with Brown Clay (Soft.
- 45 65 Hard Broken Basalt.
- 65 90 Hard Gray Basalt.
- 90 120 Firm & Brown Semi-Decomposed Basalt.
- 120 137 Red Cinder
- 137 142 Porous Broken Basalt (Dark) / Water

# **Deepening:**

263 - 282 Semi Weathered Brown Basalt Very Dirty with multiple pump installation materials.

Air Test:50 GPM
Test Pump:
PWL:
<b>Total Dissolved Solids: 147 PPM</b>

**Drillers Names: Jim Gunn** 

Trainees: Henry Salesa, Aliielua Peretiso, Jeff Tatupu, Ietitaia Levi, &

Leuatea Faiai

Date drilling started: *October 31*, 2023 Date drilling ended: *November 24*, 2023

Deepening started and ended: 12/07/2023 - 02/07/2024

### **MAPUSAGA WELL #29**

Well Number: <u>29</u> SWL: <u>428'</u> Sea Level: <u>432'</u>
Address: <u>Mapusaga</u> Depth of Completed Well: <u>482' with 10'</u>

<u>cuttings</u>

Type of work: <u>Well Drilling</u> Depth first water: 455'

Type of work: <u>Well Drilling</u> Depth first water: <u>455'</u>

Drill Method: <u>Air rotary</u> Casing size: <u>10"</u>

### \*Borehole Construction

Dia. From: <u>0</u> to: <u>18'-14" hole</u> From: <u>18'</u> to: <u>142'- 12" hole</u> Well casing: <u>+2' to 142'</u> Tota: <u>144' of 10" casing with MB shoe</u> Sealing material: <u>Neat cement</u> From: <u>142'</u> to <u>122' with push plugs</u> Backfill From: <u>122'</u> to: <u>18' neat cement 10 bags</u>

### \*Cement use

Cement from 142' up to 122' 16 bags used. Backfilled from 122' up to 18' 64 bags used. Cement upper seal from 18' to 0' 22 bags used. Total bags of cement used: <u>102 bags</u>.

# \*Drilling

- 0 5 Boulders and brown soil.
- 5 17 Gray basalt.
- 17 54 Gray basalt with broken seams.
- 54 90 Soft dark gray basalt.
- 90 106 Broken red basalt.
- 106 159 Medium gray basalt.
- 159 182 Blind
- 182 201 Medium Gray Basalt
- 201 226 Broken Red Cinders
- 226 281 Broken Red Cinders with Firm Seams
- **281 340 Blind (Cement)**
- **340 365 Blind (Cement)**
- **365 390 Blind (Cement)**
- 390 409 Blind (Cement)
- **409 416 Blind (Cement)**

- 416 422 Broken Gray Basalt (Cement)
- 422 455 Gray Basalt Semi Firm H20 @ 455'
- 455 482 Very Broken and Weathered Basalt Caving Drilled to 482' and hole became blind. Caved up to 470'

Air Test:	
Test Pump:	
Formations:	From To SWL
*	*
*	*
*	*
*	*
*	*
*	*
*	*
*	*
*	*
*	*
*	*
*	*
*	*

**Drillers Names: Jim Gunn** 

Trainees: Henry Salesa, Aliielua Peretiso, Jeff Tatupu & Leuatea Faiai Date drilling started: *May 19, 2022* Date drilling ended:

**November 30, 2023** 

# **Tafuna WELL #18 (196)**

Well Number:\_18\_\_ SWL:\_'\_ Sea Level:\_118'\_ Address:\_\_\_\_ Depth of Completed Well:\_263'

Type of work: \_\_Well Drilling \_\_\_ Depth first water: \_137'\_\_

Drill Method: <u>Air rotary</u> Casing size: \_10"\_

### \*Borehole Construction

Dia. From: 0 to 18': 14" hole From: 18' to 78': 12" Hole

Hole Dia. From: 78 to 142: 8-1/8" Hole

Well casing: <u>10"</u> Total: <u>80' well casing with Mitsubishi shoe</u>

Sealing material: Neat cement From: 78' to 65'

Backfill From: 65' up to '18

### \*Cement use

Cement from 78' up to 65' - 10 bags used. (Push Plug)

Backfill from 65'- 18' - 12 bags

Cement upper seal from 18' to 0' - 14 bags used.

Total bags of cement used: 36 bags.

# \*Drilling

### **Formations:**

0 - 8 Topsoil brown clay with small boulders.

8 - 12 Broken Basalt (Dark).

12 - 45 Decomposed Basalt with Brown Clay (Soft.

45 - 65 Hard Broken Basalt.

65 - 90 Hard Gray Basalt.

90 - 120 Firm & Brown Semi-Decomposed Basalt.

120 - 137 Red Cinder

137 - 142 Porous Broken Basalt (Dark) / Water

# **Deepening:**

263 - 282 Semi Weathered Brown Basalt Very Dirty with multiple pump installation materials.

Air Test:_	_50 GPM
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Test Pump: \_\_\_

**PWL:** 

**Total Dissolved Solids: 147 PPM** 

**Drillers Names: Jim Gunn** 

Trainees: Henry Salesa, Aliielua Peretiso, Jeff Tatupu, Ietitaia Levi, &

Leuatea Faiai

Date drilling started: *October 31*, 2023 Date drilling ended: *November 24*, 2023

Deepening started and ended: 12/07/2023 - 02/07/2024

### **VAIPITO WELL #23**

Well Number: 23 SWL: 219' Sea Level: 220' approximately

Address: Vaipito Depth of Completed Well: 282'

Type of work: <u>Well Drilling</u> Depth first water: <u>232'</u>

Drill Method: <u>Air rotary</u> Casing size: <u>10"</u>

### \*Borehole Construction

Dia. From: <u>0</u> to: <u>30'-14" hole</u> From: <u>30'</u> to: <u>118'</u>-12" Hole

Hole Dia. From: <u>118'</u> to: <u>282'</u> - 8-1/8" Hole

Well casing: +2'to 118' Total: 120' of 10" well casing with Mitsubishi

<u>shoe</u>

Sealing material: Neat cement From: 118' to 80' with push plugs

Backfill From: Cement from 80' up to 30'

### \*Cement use

Cement from 118' up to 80' - 20 bags used. (Push Plug)

Backfill from 80'- 30' - 15 bags

Cement upper seal from 30' to 2' - 25 bags used.

Other from -2' up to Ground - 1 bag of 3/8" Bentonite Chips

Total bags of cement used: 60 bags.

# \*Drilling

#### **Formations:**

0 - 30 Volcanic Red Clay (Soft).

30 - 80 Broken Tight Basalt.

80 - 118 Semi-firm Gray Basalt.

118 - 130 Semi-Broken Basalt with Red Clay Binder.

130 - 260 Semi-decomposed Red & Gray Basalt.

260 - 282 Firm Dark Grey Basalt.

# **Deepening**

282 - 293 Firm Dark Grey Basalt

293 - 351 Soft Brown Semi Porous Basalt H20

351 - 363 Dark Brown Basalt w/Tan-Gray Clay

**SWL after Deepening: 232' (03/14/2024)** 

Final Depth after Deepening: 363' Test Pump Setting: 340' Maximum

Air Test: \_\_40-50 GPM\_\_\_\_\_ Test Pump: \_\_\_

**PWL:** 

**Total Dissolved Solids: 140 PPM** 

**Drillers Names: Jim Gunn** 

Trainees: Henry Salesa, Aliielua Peretiso, Jeff Tatupu, Ietitaia Levi, &

Leuatea Faiai

Date drilling started: August 29, 2023 Date drilling ended: October 3,

*2023* 

Deepening started: February 20, 2024 Deepening ended: February 21,

2024

# **VATIA WELL #16**

Well Number: <u>16</u> SWL: <u>61'</u> Sea Level: <u>80'</u>						
Address: <u>Vatia</u> Depth of Completed Well: <u>150'</u>						
Type of work: Well Drilling Depth first water: 113'  Drill Method: Air rotary Casing size: 6"						
*Borehole Construction						
Dia. From: <u>0</u> to: <u>60' - 12" hole</u> From: <u>60'</u> to: <u>78' - 8-1/8" Hole</u> Well casing: <u>+2' to 78'</u> Total: <u>80' of 6" well casing with no shoe</u> Sealing material: <u>Neat cement</u> From: <u>78'</u> to <u>60' with push plugs</u>						
						Backfill From: None
*Cement use						
Cement from 78' up to 60' - 8 bags used.						
Cement upper seal from 60' to 0' - 40 bags used.						
Total bags of cement used: 48 bags.						
*Drilling						
Formations:						
0 - 52 Volcanic Red Clay (Soft).						
52 - 54 Black Ash.						
54 - 90 Gray basalt.						
90 - 96 Soft Red Clay (Stable).						
96 - 113 Medium Grey Basalt (Semi-Broken).						
113 - 150 Semi-weathered Basalt (Some Broken).						
A: T. 4 20 CDM						
Air Test:30 GPM						
Test Pump:35 GPM Constant with 52' of Drawdown after 12 hrs.						
PWL: 113' 17						
Total Dissolved Solids: 140 PPM						
Drillers Names: Jim Gunn						
Trainees: Henry Salesa, Aliielua Peretiso, Jeff Tatupu, Ietitaia Levi, &						
Leuatea Faiai						
Louana I alai						

Date drilling started: *June 14, 2023* Date drilling ended: *July 3, 2023* 

### CAPITOL WELL DRILLING

### **WELL 25 ILIILI LOG**

**Engineer:** 

**Driller Name:** James Gunn **Driller's License:** 1629 WRD – Oregon Well

Construction

**Project** Katrina Mariner **Division:** ESD – American Samoa Power

Authority

Village: Iliili Well Elevation (ft.): 121.00 Sea Level (ft.): 119.00

Well ID.: 25 After Drilling SWL 117.00

(ft.):

City: Pago Pago First Water (ft.):

State: American Samoa Well Depth (ft.): 141

Type of Work: New Construction Sealing Material: Cement Bags Used: 58

**Drill Method:** Air Rotary **From (ft.):** To (ft.): 0 141

**Borehole Construction:** 

Dia. From: To Notes:

8" 0 101

7.5" Casing 101 141 7 ½" hole

Air Test (gpm): 150 Drill pipe placed for 125

air test at (ft.):

Formations:	From (ft.):	To (ft.):	SWL (ft.):
Large broken basalt	0	5	
Medium hard basalt	5	24	
Broken basalt	24	31	
Gray basalt	31	35	
Semi broken basalt	35	37	
Red brown basalt	37	51	
Broken gray basalt	51	55	
Gray basalt	55	61	
Gray and red basalt	61	80	
Semi porous basalt gray	80	85	
Grey basalt with few sands	85	99	
Broken basalt	99	131	
Coral white with sand	131	141	

**Recommended Pump Setting:** Set pump at 120 ft.

### CAPITOL WELL DRILLING

### WELL 7 TAFUNA/FAGAIMA LOG

**Driller Name:** James Gunn **Driller's License:** 1629 WRD - Oregon Well

Construction

Project Katrina Mariner **Division:** ESD – American Samoa Power

Authority

Village: Tafuna/Fagaima Well Elevation (ft.): 108.66 **Sea Level (ft.):** 106.66

Well ID.: 7 **After Drilling SWL** 104.2

(ft.):

City: Pago Pago First Water (ft.):

State: American Samoa Well Depth (ft.): 145

Type of Work: **New Construction Sealing Material:** Cement **Cement Bags Used:** 

122

**Drill Method:** To (ft.): Air Rotary From (ft.): 102

**Borehole Construction:** 

**Engineer:** 

Dia. From: To **Notes:** 

12" 0 102

7 ½" hole 8" Casing 102 145

Air Test (gpm): 60 Drill pipe placed for 145

air test at (ft.):

**Formations:** From (ft.): **To (ft.):** SWL (ft.):

Loose boulders 12 Medium grey basalt 12 57 Broken basalt with voids – Lost 57 69 circulation here. Clay basalt 69 90

90 Broken up basalt 95

Medium grey basalt with porous seams 95 108 Final Water Level

Semi porous black and red basalt 108 145

**Date Started:** 03/03/2020 **Date Completed:** 05/01/2020

### **Drillers Notes:**

Recommending we go with steel drop pipe or galvanized and not PVS with couplings.