Overview

The well log modules in AASPI allow you to:

- import LAS format *.las files and convert them to *.H AASPI format,
- display the curves, and
- > export AASPI-format *.H files as LAS-format *.las files.

AASPI Implementation

To run and visualize well log curves use the step by step process summarized below.

Step 1: Accessing the Well Log Utilities

Well log utilities are located on the second row of tabs under the **aaspi_util** GUI:

	Scarch 10013		HIDOX KHIGHG		m bb AH	tachment Tools			
X aaspi_util GUI - Posi	t Stack Utilities (Release D	ate: 8 February 2019)					_		\times
<u> </u>	Attributes Spectral	Attributes Single Tr	ace Attribute	es Formation Attribu	utes Volumetri	ic Classification	Image Processi	ing	Help
Attribute Correlatio	n Tools Display Too	ls Machine Learnin	g Toolbox	Well Log Utilities Otl	her Utilities Se	et AASPI Default I	Parameters		
SEGY to AASPI format conversion	AASPI to SEGY format conversion (multiple files)	AASPI to SEGY format conversion (single file)	AASPI QC	LAS file importer LAS file ex <u>porter</u> Plot well log Import	LAS-format wel	AASPI I logs ilities			
SEGY to AASPI - Convert Poststack seismic volumes from SEGY to AASPI format									

Figure 1. Accessing the well log utilities in AASPI.

Step 2: Importing the LAS file

AASPI currently only imports the LAS 2.0 format. To import a LAS file:

- 1. Click on browse and import and add to current list (Figure 2)
- 2. Input the well head location coordinates (X and Y)
- 3. For a directional well, a well trajectory file can also be imported. In this example we will load a vertical well with hypothetical coordinates. In case, **X** and **Y** coordinates are available we will input the **X** and **Y** coordinates
- 4. A unique project name and suffix are required. In this case, we will define the project name to be *test* and suffix as zero.



- 5. Click *Execute las_file_import*. On successful completion of program, a new window will pop up with normal completion message.
- 6. Click exit



Figure 2. Importing an LAS-format file in AASPI

AASPI - program	n las_file_import (Release Date: 25 January 2019)		_	- 🗆	\times
Eile					<u>H</u> elp
Load well log files (AASPI - Program Completion Status	-	\times		
 Optional: specify w You can specify we 			 		
Well trajectories are	Program Completion Status				
Well trajectory files and can have differ	Normal completion of program las_file_import				
but the 4 properties					
Well LAS files					
· · · ·					
List of input las f					
C:\Users\sinhb				text file	
				to a text file	
t .					
·					
Lateral unit:					
Unique Project N					
Suffix					
Verbose					
, cibosci					
1					
1					
2					
			ľ	<u>v</u>	
				\leq	
	(c) 2008-2019 AASPI - The University of Oklahoma		Exit		

Figure 3. The normal completion pop-up window resulting from LAS file import

Step 3: Plotting and displaying an LAS-format file

The steps for displaying a well log curve are summarized below.

1. Go to well log utilities, plot well logs.

🗙 aaspi_util GUI - Post Stack Utilities (Release D	ate: 8 February 2019)			—	\times				
📙 Eile Geometric Attributes Spectral Attributes Single Trace Attributes Formation Attributes Volumetric Classification Image Processing Hel									
Attribute Correlation Tools Display Tools Machine Learning Toolbox Well Log Utilities Other Utilities Set AASPI Default Parameters									
SEGY to AASPI format conversion	AASPI to SEGY format conversion AASPI QC	LAS file importer LAS file exporter _{flows}	AASPI Prestack Utilities						
(multiple files) (single file) Plot well log									
SEGY to AASPI - Convert Poststack seismic volumes from SEGY to AASPI form Plot AASPI-format well logs SEGY Header Utility :									

A new window will open like one shown in Figure 4.

- 2. Click on input AASPI well log file, browse and select the file in *.H format.
- 3. Select the curves you want to remove from the list and keep the ones to be plotted.
- 4. Select the appropriate depth curve (MD or TVD). In the example below, it's called *depth*.
- 5. Select the depth range of the logs to be displayed.
- 6. Click *Execute*. A new window will pop up displaying the well log curves. The controls on the bottom left allows the user to pan over and zoom in on the curves.

aaspi_plot_well_log (Release Da	ate: 25 January 2019)				- 🗆 ×
<u>F</u> ile					<u>H</u> elp
Plot a well log file		2			
nput AASPI Well log file: C:\Users	sinh51%\AASPI\well log test file.H Browse				
List of well log curves to b	3	Plot Min Values	Plot Max Values	Replace NULL Values With:	Reset Min, Max, and Null
1: DEPTH	escan curve	50	14520	-999.25	
2: AT10		1.086	1950	-999.25	
3: AT30 M	1ove selected curve UP	1.081	1863.04	-999.25	
4: AT90 M	1ove selected curve DOWN	0.873	1950	-999.25	
5: DT24	eselect all curve in current list	51.849	179.35	-999.25	
6: DTCO		47.733	104.619	-999.25	
7: DTSM	emove selected curve from current list	92.825	209.671	-999.25	
8: DTST Sa	ave list to file	282.041	308.325	-999.25	
9: GR		7.352	183.957	-999.25	
19: RT		0.846	987.088	-999.25	
	<u> </u>		• •	• •	
Death annual					
Depth curve: 1: DE					
Plot start depth (ft): 50					
Plot end depth (ft): 14520	•				
Death is seen a surroused?					
Depth increase downwardr 1					
Unique Project Name: test					
Suffix					
0					
Verbose output?					
					4
(c) 2008-2019 AASPI for Windows -	- The University of Oklahoma				Execute

Figure 4. Parameters setup in AASPI to display a well log



Figure 5. AASPI well log display. The controls on the bottom left provide basic tools to zoom and pan the curves.

LAS and AASPI Format

While LAS is the standard format for reading the well log data throughout the industry AASPI utilizes binary .H format to run any operations on well logs. A comparison of these two file formats headers is shown in **Figure 4**.

a) AASPI .H Format

b) LAS Format

The "well log test file me" VF The "well log test file me" VF Vertical velle "n" VF Vertical velle "n" VF Neader line 1"" Version Information Block" VF Neader line 3"" Version Information Block" VF Neader line 3"" Version Information Block" VF Neader line 5"" NEWL WINT Data Type Information" VF Neader line 5"" NEWL WINT Data Type Information" VF Neader line 5"" STRFT DEPTR" VF Neader line 1"" OVER LING ON STOP DEPTR" VF Neader line 1"" OVER LING ON STOP DEPTR" VF Neader line 1"" OVER LING ON STOP DEPTR" VF Neader line 1"" OVER LING ON STOP DEPTR" VF Neader line 1"" OVER LING ON STOP DEPTR" VF Neader line 1"" OVER LING ON STOP DEPTR" VF Neader line 1"" OVER LING ON STOP DEPTR" VF Neader line 1"" OVER LING ON STOP DEPTR" VF Neader line 1"" OVER LING ON STOP DEPTR" VF Neader line 1"" OVER LING ON STOP STOP STOP STOP STOP STOP STOP STOP	RS . 2. AP . ell Information Block VEM.UNIT Data TY AT .FT 50. OP .FT 14520. CF .FT 0. LL999. MP . LL . MUELLER_FAMILY D . C . XY .	00: CWLS LOG ASCIL STANDARD - VERSION 2.00 NO: One line per depth step pe Information
Ins Will Col_Cast_Like no Ni Ins Will Col_Cast_Like no Ni vertical well = n Ni vertical well = n Ni header line 2 version Information Block" A header line 2 version Information Block Mi header line 2 version Information Block Si header line 2 version Information Si	AP. Ell Information Block NEM.UNIT Data Ty ART.FT 50. DP.FT 14520. EP.FT 4520. EP.FT 4520. LL -999. MP. LL MUELLER_FAMILY D - C - RY.	No: One line per depth step pe Information
Original_lar_ine_iness	ell Information Block NEM.UNIT Data Ty NEM.UNIT Data Ty NEM.UNIT 50. De FT 14520. DE FT 00. LL - 9999. MP . LL . MUELLER_FAMILY D . C . XV .	pe Information 0: START DEPTH 0: STOP DEFTH 5: STEP 5: SULL VALUE 1: COMPANY 01_01_PTLOT: WELL 1: FIELD
Vertical_velter: #* header_lime_ler-version information Block" #* header_lime_ler-version information Block" #* header_lime_ler-version NO: One line per depth step" header_lime_ler-version NO: One line per depth step" header_lime_ler-version ST header_lime_fer-version ST <td>NEM.UNIT Data Ty RT.FT 50.0 DP.FT 14520. EP.FT 0.0 LL999. MP. LL MUELLER_FAMILY D . C . RY .</td> <td>pe Information 00: STOP DEFTH 00: STOP DEFTH 01: STEP 02: NULL VALUE : COMPANY 01: 01: : FIELD : FIELD</td>	NEM.UNIT Data Ty RT.FT 50.0 DP.FT 14520. EP.FT 0.0 LL999. MP. LL MUELLER_FAMILY D . C . RY .	pe Information 00: STOP DEFTH 00: STOP DEFTH 01: STEP 02: NULL VALUE : COMPANY 01: 01: : FIELD : FIELD
neader_line_2=vrums. 2.00" CMLS LOG ASCHI STANDARD - VERSION 2.00" 53 header_line_2=vrums. 2.00" One line per depth step" 53 header_line_4="wellh Information Block" 53 53 53 header_line_5="stafficture" 53 53 53 header_line_5="stafficture" 53 53 53 header_line_5="stafficture" 53 50.00" 575 53 header_line_5="stafficture" 50.00" 575 55 53 55 header_line_5="stafficture" 1650.00" 575 55 57 75 50.00" 575 75 header_line_5="stafficture" 1650.00" 5705 5727 75 55 5727 75 55 5727 55 5727 55 5727 55 55 5727 55 5727 55 5727 55 5727 55 5727 55 5727 55 5727 55 5727 55 5727 57 572 572 572	RT.FT 50. DP.FT 14520. SP.FT 0. LL -999. MP. LL MUELLER_FAMILY D. C RY.	00: START DEPTH 00: STOP DEPTH 50: STEP 51: SULL VALUE 1: CONFANY 01_01_PTLOT: WELL 1: FIELD 1: FIELD
neader_lime_verwards 2.00' CMS LOG ASCIT STANDARD - VERSION 2.00" ST header_lime_Serward NO: One line per deph step" ST header_lime_Serward ST	RT.FT 50. DP.FT 14520. SP.FT 0. LL999. MP LL. MUELLER_FAMILY D C RY.	00: STOP DETH 50: STOP DETH 50: STEP 51: NULL VALUE 1: COMPANY 01 01 FILOT: WELL 1: FIELD 1: FIELD
header_line_3="#KAP. NO: One line per depth step" ST header_line_4="kell Information Block" ST header_line_6="kell.NIT Data Type Information" NT header_line_8="stop.FT" 50.00: START DEFTH" NT header_line_8="stop.FT" 0.50: STEP" NT header_line_10="NULL . -999.25: NULL VALUE" CT header_line_11="COMP. : COMPANY" CT header_line_11="COMP. : STELD" ST header_line_11="COMP. : FIELD" ST header_line_11="COMP. : FIELD" ST header_line_11="COMP. : LOCARTION" DA header_line_11="COMP. : COMPANY" ST header_line_11="COMP. : COMPANY" ST header_line_11="COMP. : LOCARTION" DA header_line_11="COMP. : COMPANY" ST header_line_11="COMP.	DP FT 14520. EP FT 0. LL -999. MP . LL . MUELLER_FAMILY D . C . RY .	00: STOP DEPTH 50: STEP 25: NULL VALUE : COMPANY 01:01 PILOT: WELL : FIELD : FIELD : FORD YOR
header_line_4****Holl Information Block* 57 header_line_5************************************	EP .FT 0. LL999. MP . LL . MUELLER_FAMILY D . C . RY .	50: STEP 25: NULL VALUE : COMPANY 01 01 PILOT: WELL : FIELD : FIELD
header_line_5="#MSHE.UNIT DataType Information" NI header_line_6="#	LL999. MP . LL . MUELLER_FAMILY D . C . RY .	25: NULL VALUE : COMPANY : 01 01 FILOT: WELL : FIELD : LOCHNEON
header_line_6="start_rest" CC header_line_7="STRT_FT 50.00: STRAT DEFTH" FT header_line_8="STRP_FT 14520.00: STOP DEFTH" FT header_line_9="STRP_FT 0.50: STEP" LC header_line_1="Count_rest" FT 50.00: STOP DEFTH" CT header_line_9="STRP_FT 0.50: STEP" LC CT header_line_1="Count_rest" ST ST ST header_line_1="Count_rest" ST CT ST header_line_1="Count_rest" ST ST ST header_line_1="Count_rest" ST ST ST header_line_1="Count_rest" ST ST ST header_line_1="STRP_rest" ST ST ST	MP. LL. MUELLER_FAMILY D. C. RY.	: COMPANY 01_01_PILOT: WELL : FIELD
header_line_7="STRT.FT 50.00: START DEFFH" Mt header_line_8="STOP_FT 14520.00: STOP DEFTH" FI header_line_8="STOP_FT 0.50: STEP" IL header_line_10="NULL	LL . MUELLER_FAMILY D . C . RY .	_01_01_PILOT: WELL : FIELD : FIELD
header_line_BerSTOP.FT 14520.001 STOP DEFTH" FI header_line_BerSTOP.FT 0.501 STEP LL header_line_BerSTOP.FT 0.501 STEP CT header_line_Iler_COMP. ST ST ST header_line_Iler_COMP. ST ST ST header_line_Iler_COMP. ST ST ST header_line_Iler_STALL MUELLER_FAMILIC_O_IPTLOT: WELL" ST header_line_Iler_STALL ST FILLON" ST header_line_Iler_STALL MUELLER_FAMILICON" ST ST header_line_Iler_STALL MUELLER_FAMILICON" ST ST header_line_Iler_STALL LOCATION" ST ST header_line_Iler_STALL CONTENT ND ST header_line_Iler_STALL CONTENT ND ST header_line_Iler_STALL CONTENT ST ST	D . C . RY .	: FIELD
header_line_9="STFP.FT 0.50: STEP" [L header_line_10="NULL vALUE" CT header_line_11="COMP. : COMPANY" ST header_line_12="WILL NULL VALUE" CT header_line_12="WILL NULL VALUE" ST header_line_12="WILL NULL VALUE" CT header_line_12="WILL NULL VALUE" ST header_line_12="WILL NULL VALUE" CT header_line_13="WILL NULL VALUE" ST header_line_13="WILL NULL VALUE" ST header_line_13="WILL NULL VALUE" ST header_line_14="LOC NULL VALUE" ST header_line_14="LOC NULL VALUE" ST header_line_15="CTRY NULL VALUE" ST header_line_15="CTRY NULL VALUE" NULL VALUE" header_line_15="CTRY NULL VALUE" ST header_line_11="STAT" W header_line_11="STAT" ST	C . RY .	. TOCHMION
header_line_10="NULL -999.25: NULL VALUE" CI header_line_11="COMP SI SI SI header_line_12="WHILL WUELLER_FAMILY_01_01_FLLOT: KELL" CC header_line_13="TELD : FIELD" SI SI header_line_14="LOC : LOCATION" DA Header_line_14="LOC" DA header_line_15="CTRY. : COUNTRY" DA AF header_line_16="STAT. : STATE" UW Meader_line_18="CTWY. -C header_line_18="CTWY. : COUNTY" YM AF Header_line_18="STM". 'C	RY .	: DOCATION
header_line_ll="COMP. : COMPANY" ST header_line_ll="COMP. WHELLER_FAMILY_0_1_0_1_FILOT: WELL" Ch header_line_ll="COMP. : FIELD" ST header_line_ll="COMP. : LOCATION" DF header_line_ll="COMP. : COUNTRY" AF header_line_ll="COMP. : STATE" W header_line_ll="COMP." : STATE" W header_line_ll="COMP." : SCATER" W		: COUNTRY
header line 12="HELL MUEELER FAMILY 01 01 FLOT: WELL" (C) header line 13="FLD ; FELD" SF header line 14="LOC ; LOCATION" DF header line 15="CTRH ; COUNTRY" DF header line 15="CTRH ; COUNTRY" (V) header line 17="CTRH ; COUNTRY" (V) header line 17="CTRH ; COUNTRY" (V)	AT .	: STATE
header_line_l3="FID. : FIELD" ST header_line_l4="Loc : LoCARTIN" DB header_line_l5="CTRM. : COUNTRY" AI header_line_l5="CTRM. : STATE" W header_line_l1="CTRM. : STATE" W header_line_l1="CTMT. : COUNTRY" "C	ry .	: COUNTY
header line 14="LOC . : LOCATION" DF header line 15="CTRY . : COUNTRY" AI header line 15="CTRY . : STATE" UN header line 17="CTRY . : COUNTY" UN header line 17="CTRY . : COUNTY" COUNTY"	VC .	: SERVICE COMPANY
header_line_lis="CTRY. : COUNTRY" Al header_line_lis="STAT. : STATE" U header_line_lis="STAT. : COUNTRY" U header_line_lis="STAT. : COUNTRY" M	FE .	: DATE
header_line_16="STAT . : STATE" UL header_line_17="CMTY . : COUNTY" ~CC ~CC header_line_18="SHUC . : SEUTCE COMPANY"	Ι.	: API NUMBER
header line 17="CNTY . : COUNTY" ~C	Ι.	: UNIQUE WELL ID
header line 18="SRVC SERVICE COMPANY"	urve Information Block	
The second	NEM.UNIT API CO	DE Curve Description
header line 19="DATE . : DATE"		
header line 20="API . : API NUMBER"	PTH.FT 00 000 00	00: Depth (MD)
header line 21="UWI . : UNIQUE WELL ID"	10 .OHMM 00 027 00	00: AIT 10 INCH INVESTIGATION
header line 22="~Curve Information Block"	30 .OHMM 00 029 00	00: AIT 30 INCH INVESTIGATION
header line 23="#MNEM INIT API CODE Curve Description"	90 .OHMM 00 031 00	00: AIT 90 INCH INVESTIGATION
header line 24="#"	24 .US/F 00 064 00	00: INTERVAL TRANSIT TIME OVER 24-IN. INTERV
header line 25="DEPTH.FT 00 000 00 : Depth (MD)"	CO .US/F 00 065 00	00: 6 Delta-T Compressional
beader line 26="3#10_0HMM_00_027_00_00" atr 10_TNCH_TNUES#TGA#TON"	SM .US/F 00 070 00	00: 5 Delta-T Shear
basder line 27-"am30 OHMM 00.029.00.00: arm 30 TNCH INVESTIGATION"	ST .US/F 00 075 00	00: 3 Delta-T Stoneley - Monopole Ston
Beader line 28-"3790 ORM 00.031.00.00: STT 90 TNCH INVESTIGATION"	.GAPI 00 094 00	00:
beader line 29m "DT24 US/F 00 064 00 00' INTERVAL TRANSIT TIME OVER 24-IN INTERV"	_EDTC.GAPI 00 095 0	0 00: Gamma Ray
Beader line 30="DTCO US/F 00 065 00 00: 6 Delta-T Compressional"	PXD.GAPI 00 096 00	00: GR
hader line 31="DTGM UK/F 00 070 00 00: 5 Delta-T Shear"	R1.OHMM 00 129 00	00:
header line 31- Disk (SAF) 00 00 00 00 3 Delta-T Sheal (Mi	R6.OHMM 00 132 00	00: N/A
Million 22-100 CBAT 00 004 CD 00 00 1	RX .OHMM 00 134 00	00: N/A
harder_line_de_compone_capet_	HI .POR 00 139 00	JU: NEUTRON POROSITY
header line 34- GR ADIC GART 00 055 00 00. GR NARY	HI_PXD.POR 00 140	00 00: NPHI_PXD
Neder Time 33- GR FAD GAPT 00 096 00 001 GR FAD"	DB .G/C3 00 172 00	00: BULK DENSITY
Reder Time 30= MARL JURAN 00 125 00 00. N/A	OB_PXD.G/C3 00 173	00 00: RHOB for PXD displays
Reder line 3/= Mike Onist 00 132 00 00: N/A	OHMM 00 176 00	00: True Formation Resistivity
neader ine 30= mika. Cham 00 134 00 00: N/A"	arameter Information Bl	OCK

Figure 4 a) AASPI binary format b) LAS format

LAS export from AASPI

The AASPI Export LAS file GUI is found in the same area as the Import GUI:

🗙 aaspi_util GUI - Post Stack Utiliti	ies (Release Date: 8 February 2019)	- 0	×					
📗 Eile Geometric Attributes Spectral Attributes Single Trace Attributes Formation Attributes Volumetric Classification Image Processing H								
Attribute Correlation Tools Display Tools Machine Learning Toolbox Well Log Utilities Other Utilities Set AASPI Default Parameters								
[LAS file importer		-					
SEGY to AASPI format conversion format c	to SEGY AASPI to SEGY AASPI oc LAS file exporter flows AASPI		Γ					
(multi	ple files) (single file) Plot_well log Plot_well log							
SEGY to AASPL - Convert Poststack seismic volumes from SEGY to AASPL format Export LAS-format well logs								
SEGY Header Utility :	SEGY Header Utility							

While all operations in AASPI on well logs are performed on the .H format, the wells can also be exported back into LAS format for use in commercial software.

AASPI provides the text wrapping option to export the well logs. A comparison with and without text wrapping is shown in **Figure 6** and **Figure 7**.

To export the well logs from AASPI format to LAS format:

- 1. Click LAS file exporter from the well log utilities. The GUI in Figure 6 appears.
- 2. Click browse and add to the current list
- 3. From the text wrapping dropdown menu select YES (Figure 5)
- 4. Provide a unique project name
- 5. Click Execute las_file_import
- 6. Repeat the same process with the text wrapping option "NO"
- 7. **Figure 6** shows the LAS file with text wrapping option "YES" and **Figure 7** with option "NO". Notice the difference between the two formats.

AASPI - program las_file_export (Release Date: 25 January 2019)	- 0	×
<u> </u>		<u>H</u> elp
Export AASPI well log files to LAS 2.0 files Output file will have the same name as input AASPI well log files, with extension '.las'		
List of AASPI well log files:		
C:\Users\sinh5193\Desktop\AASPI_doc\well_log_test_file Browse and add to current list		
Load and append list from a text file		
Save current list to a text file		
Remove selected files from current list		
Deselect all files in current list		
Reset list u		
Text wrapping option: Yes		
Unique Project Name: ON_		
Suffix: 0	5	7
Verbose:		5
(c) 2008-2019 AASPI for Windows - The University of Oklahoma	Execute las_file_	export

Figure 5. Exporting LAS file with "text wrapping ON"

#MNEM.UNIT	1	API CODE	Curve Des	cription		
#						
DEPTH .	FT		: 1	Depth (MD)		
AT10 .	OHIMM		: 2	AIT 10 INCH	INVESTIGATION	
AT30 .	OHMM		: 3	AIT 30 INCH	INVESTIGATION	
AT90 .	OHIMM		: 4	AIT 90 INCH	INVESTIGATION	
JT24 .	US/F		: 5	INTERVAL TR	ANSIT TIME OVER 2	4-IN. INTERV
DTCO .	US/F		: 6	Delta-T Com	pressional	
DTSM .	US/F		: 7	Delta-T She	ar	
OTST .	US/F		: 8	Delta-T Sto	neley - Monopole	Ston
SR .	GAPI		: 9)		
GR_EDTC .	GAPI		: 10	Gamma Ray		
GR_PXD .	GAPI		: 11	GR_PXD		
41R1 .	OHMM		: 12			
41R6 .	OHMM		: 13	N/A		
41RX .	OHMM		: 14	N/A		
VPHI .	POR		: 15	NEUTRON POR	OSITY	
PHI POR			: 16 NPH	I_PXD		
RHOB .	G/C3		: 17	BULK DENSIT	Y	
RHOB PXD .	G/C3		: 18	RHOB for PX	D displays	
кт .	OHIMM		: 19	True Forma	tion Resistivity	
-Parameter	Informat:	ion Block				
MNEM.UNIT		Value	Descripti	on		
ŧ						
PROJECT .	:					
SET .		WIRE1:				
Other Info	ormation 1	Block				
ŧ						
*********	#########	*******	##########	*********	************	***********
DEPTH						
ŧ	AT10		AT30	AT90	DT24	DTCO
ŧ	DTSM		DTST	GR	GR EDTC	GR PXD
ŧ	M1R1		M1R6	M1RX	NPHI	NPHI PXD
+	RHOB	RHOE	PXD	RT		-
*********	#########	*******	###########	*********	************	***********
~A						
50.0000						
-99	9.2500	-999.2	500	-999.2500	-999.2500	-999.2500
-99	9.2500	-999.2	500	-999.2500	-999.2500	30,0670
-99	9.2500	-999.2	500	-999.2500	-999.2500	-999.2500
-99	9.2500	-999.2	500	-999.2500		
50.5000			-			
-99	9.2500	-999.2	500	-999.2500	-999.2500	-999.2500
0.0	9 2500	-000 2	500	-999 2500	-999 2500	20 6760

Figure 6 . LAS export with text wrapping ON

M1R6	. OHIMM	:	13 N/A								
MIRX	. OHIMM	:	14 N/A								
NPHI	. POR	:	15 NEUTRON PORC	DSITY							
NPHI_	. POR	: 1	6 NPHI_								
RHOB	. G/C3	:	17 BULK DENSITY	ť							
RHOB_	. G/C3	: 1	8 RHOB for displ	lays							
RT	. OHIMM	:	19 True Format	tion Resistivity							
~Param	eter Informat	ion Block									
#MNEM.	UNIT	Value Descr	iption								
#											
PROJEC	T.										
SET .		WIRE1:									
~Other	: Information	Block									
#											
~A	DEPTH	AT10	AT30	AT90	DT24	DTCO	DTSM	DTST	GR	GR_EDTC	GR_PXD
	50.0000	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	30.0670
	50.5000	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	30.6760
	51.0000	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	30.7620
	51.5000	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	30.2350
	52.0000	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	30.1500
	52.5000	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	29.9240
	53.0000	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	29.3740
	53.5000	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	29.5770
	54.0000	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	29.8980
	54.5000	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	28.3740
	55.0000	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	26.2310
	55.5000	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	25.9650
	56.0000	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	26.9680
	56.5000	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	27.1880
	57.0000	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	26.6940
	57.5000	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	27.4030
	58.0000	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	-999.2500	28.1190

Figure 7. LAS export with text wrapping OFF