



Ursa Operating Company, LLC

Rockies Region

Yater

YATER 22A-17-07-95

Wellbore #1

Design: Actual

End of Well Report

28 July, 2015



Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well YATER 22A-17-07-95
Project:	Rockies Region	TVD Reference:	YATER 22A-17-07-95 @ 5536.0usft (CAPSTAR 321)
Site:	Yater	MD Reference:	YATER 22A-17-07-95 @ 5536.0usft (CAPSTAR 321)
Well:	YATER 22A-17-07-95	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM 5000.1 Single User Db

Project	Rockies Region		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	Yater		
Site Position:		Northing:	1,593,358.14 usft
From:	Lat/Long	Easting:	2,286,525.77 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	39° 26' 7.071 N
		Longitude:	108° 1' 35.041 W
		Grid Convergence:	-1.59 °

Well		YATER 22A-17-07-95, SHL LAT: 39.435194634 LONG: -108.026397133				
Well Position	+N/-S	0.0 usft	Northing:	1,593,320.64 usft	Latitude:	39° 26' 6.700 N
	+E/-W	0.0 usft	Easting:	2,286,525.60 usft	Longitude:	108° 1' 35.030 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	5,536.0 usft	Ground Level:	5,519.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/15/2015	9.84	65.57	51,813

Design	Actual			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	23.09

Survey Program	Date	7/28/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
238.0	7,180.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM 5000.1 Single User Db

Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
238.0	0.62	31.51	238.0	1.3	1.1	0.7	0.26	0.26	0.00
268.0	0.79	41.66	268.0	1.6	1.4	0.9	0.70	0.57	33.83
299.0	1.71	46.36	299.0	2.3	1.9	1.4	2.98	2.97	15.16
329.0	2.77	62.00	329.0	3.2	2.5	2.3	4.05	3.53	52.13
360.0	3.87	57.17	359.9	4.7	3.4	3.9	3.66	3.55	-15.58
390.0	4.83	59.67	389.8	6.5	4.6	5.8	3.26	3.20	8.33
421.0	5.98	62.09	420.7	8.8	6.0	8.4	3.78	3.71	7.81
451.0	7.21	61.34	450.5	11.5	7.7	11.4	4.11	4.10	-2.50
482.0	8.26	61.70	481.2	14.8	9.7	15.1	3.39	3.39	1.16
513.0	9.32	62.22	511.8	18.5	11.9	19.3	3.43	3.42	1.68
543.0	10.11	59.23	541.4	22.5	14.4	23.7	3.12	2.63	-9.97
574.0	11.25	56.86	571.9	27.2	17.4	28.5	3.94	3.68	-7.65
605.0	12.17	53.65	602.2	32.5	21.0	33.7	3.64	2.97	-10.35
635.0	13.18	51.76	631.5	38.3	25.0	38.9	3.64	3.37	-6.30
666.0	14.11	51.24	661.6	44.7	29.5	44.7	3.03	3.00	-1.68
696.0	15.23	49.47	690.6	51.4	34.4	50.5	4.02	3.73	-5.90
727.0	16.12	46.25	720.5	59.1	40.0	56.7	4.01	2.87	-10.39
758.0	17.09	43.33	750.2	67.3	46.3	62.9	4.13	3.13	-9.42
801.0	18.46	38.93	791.1	79.8	56.2	71.6	4.46	3.19	-10.23
843.0	19.64	34.63	830.8	93.1	67.2	79.7	4.36	2.81	-10.24
886.0	20.79	31.33	871.2	107.7	79.6	87.8	3.77	2.67	-7.67
929.0	21.97	27.73	911.2	123.3	93.3	95.5	4.10	2.74	-8.37
971.0	22.85	24.78	950.1	139.3	107.6	102.6	3.40	2.10	-7.02
1,014.0	23.82	23.86	989.6	156.3	123.2	109.6	2.41	2.26	-2.14
1,057.0	24.65	24.08	1,028.8	173.9	139.3	116.8	1.94	1.93	0.51
1,100.0	25.62	24.30	1,067.7	192.2	156.0	124.3	2.27	2.26	0.51

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM 5000.1 Single User Db

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	
1,142.0	26.76	24.43	1,105.4	210.7	172.8	131.9	2.72	2.71	0.31	
1,185.0	27.55	23.51	1,143.6	230.4	190.8	139.9	2.08	1.84	-2.14	
1,228.0	27.73	22.23	1,181.7	250.3	209.2	147.6	1.44	0.42	-2.98	
1,270.0	27.91	21.31	1,218.9	269.9	227.4	154.9	1.11	0.43	-2.19	
1,313.0	27.99	20.78	1,256.9	290.0	246.2	162.1	0.61	0.19	-1.23	
1,356.0	28.22	20.55	1,294.8	310.3	265.1	169.3	0.59	0.53	-0.53	
1,398.0	28.74	19.60	1,331.7	330.3	283.9	176.2	1.64	1.24	-2.26	
1,441.0	29.18	19.42	1,369.3	351.1	303.6	183.1	1.04	1.02	-0.42	
1,484.0	29.31	19.82	1,406.8	372.0	323.3	190.2	0.55	0.30	0.93	
1,526.0	27.69	20.65	1,443.8	392.0	342.1	197.1	3.97	-3.86	1.98	
1,569.0	27.34	20.08	1,481.9	411.9	360.8	204.0	1.02	-0.81	-1.33	
1,612.0	26.72	20.12	1,520.2	431.4	379.1	210.7	1.44	-1.44	0.09	
1,654.0	27.11	20.04	1,557.6	450.4	397.0	217.3	0.93	0.93	-0.19	
1,697.0	27.80	20.51	1,595.8	470.2	415.6	224.1	1.68	1.60	1.09	
1,740.0	28.04	20.34	1,633.8	490.3	434.4	231.2	0.59	0.56	-0.40	
1,783.0	28.48	19.95	1,671.7	510.6	453.6	238.2	1.11	1.02	-0.91	
1,810.0	28.92	19.86	1,695.4	523.6	465.7	242.6	1.64	1.63	-0.33	
1,888.0	28.92	20.17	1,763.6	561.2	501.2	255.5	0.19	0.00	0.40	
1,973.0	29.53	20.78	1,837.8	602.7	540.1	270.0	0.80	0.72	0.72	
2,059.0	30.56	21.46	1,912.3	645.7	580.2	285.5	1.26	1.20	0.79	
2,144.0	29.79	20.17	1,985.7	688.4	620.2	300.7	1.18	-0.91	-1.52	
2,229.0	30.28	20.66	2,059.3	730.9	660.0	315.6	0.64	0.58	0.58	
2,315.0	29.36	23.42	2,133.9	773.7	699.7	331.6	1.92	-1.07	3.21	
2,400.0	29.71	22.19	2,207.9	815.6	738.3	347.8	0.82	0.41	-1.45	
2,486.0	30.37	22.01	2,282.3	858.6	778.2	364.0	0.77	0.77	-0.21	
2,571.0	29.44	20.91	2,356.0	901.0	817.6	379.5	1.27	-1.09	-1.29	
2,656.0	30.06	20.34	2,429.8	943.1	857.1	394.4	0.80	0.73	-0.67	

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MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	
2,742.0	29.61	18.73	2,504.4	985.8	897.4	408.7	1.07	-0.52	-1.87	
2,827.0	30.59	20.83	2,578.0	1,028.4	937.5	423.1	1.69	1.15	2.47	
2,912.0	30.19	19.77	2,651.3	1,071.3	977.8	438.1	0.79	-0.47	-1.25	
2,998.0	30.41	20.52	2,725.5	1,114.6	1,018.6	453.0	0.51	0.26	0.87	
3,083.0	28.83	19.68	2,799.4	1,156.6	1,058.0	467.4	1.92	-1.86	-0.99	
3,168.0	29.22	21.49	2,873.8	1,197.8	1,096.6	481.9	1.13	0.46	2.13	
3,254.0	29.18	21.35	2,948.8	1,239.7	1,135.7	497.3	0.09	-0.05	-0.16	
3,339.0	28.61	20.43	3,023.2	1,280.8	1,174.1	511.9	0.85	-0.67	-1.08	
3,425.0	29.18	21.75	3,098.5	1,322.3	1,212.8	526.9	0.99	0.66	1.53	
3,510.0	28.08	21.09	3,173.1	1,363.0	1,250.7	541.7	1.35	-1.29	-0.78	
3,595.0	28.92	20.21	3,247.8	1,403.5	1,288.7	556.0	1.10	0.99	-1.04	
3,681.0	29.79	21.29	3,322.8	1,445.6	1,328.1	571.0	1.18	1.01	1.26	
3,766.0	30.10	21.40	3,396.5	1,488.1	1,367.6	586.4	0.37	0.36	0.13	
3,852.0	31.77	22.94	3,470.2	1,532.3	1,408.6	603.1	2.15	1.94	1.79	
3,937.0	32.12	23.20	3,542.3	1,577.2	1,449.9	620.7	0.44	0.41	0.31	
4,022.0	31.03	22.54	3,614.8	1,621.7	1,490.9	638.0	1.35	-1.28	-0.78	
4,108.0	30.15	21.62	3,688.8	1,665.5	1,531.5	654.5	1.16	-1.02	-1.07	
4,193.0	28.89	21.94	3,762.8	1,707.4	1,570.4	670.0	1.49	-1.48	0.38	
4,279.0	27.40	21.13	3,838.6	1,747.9	1,608.1	684.9	1.79	-1.73	-0.94	
4,364.0	27.42	18.59	3,914.0	1,787.0	1,644.9	698.2	1.38	0.02	-2.99	
4,449.0	28.21	18.80	3,989.2	1,826.5	1,682.5	710.9	0.94	0.93	0.25	
4,535.0	27.64	21.62	4,065.2	1,866.7	1,720.3	724.8	1.67	-0.66	3.28	
4,620.0	25.84	20.69	4,141.1	1,904.9	1,755.9	738.7	2.17	-2.12	-1.09	
4,706.0	23.10	19.42	4,219.4	1,940.5	1,789.4	750.9	3.24	-3.19	-1.48	
4,791.0	20.96	20.08	4,298.2	1,972.3	1,819.4	761.6	2.53	-2.52	0.78	
4,877.0	18.68	19.46	4,379.1	2,001.4	1,846.8	771.5	2.66	-2.65	-0.72	
4,962.0	18.05	18.46	4,459.7	2,028.2	1,872.2	780.2	0.83	-0.74	-1.18	

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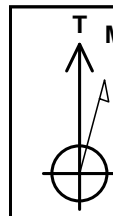
Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	
5,048.0	17.41	22.27	4,541.7	2,054.3	1,896.7	789.3	1.54	-0.74	4.43	
5,133.0	16.88	20.08	4,622.9	2,079.3	1,920.1	798.4	0.98	-0.62	-2.58	
5,218.0	17.24	21.55	4,704.1	2,104.3	1,943.4	807.2	0.66	0.42	1.73	
5,304.0	16.58	21.15	4,786.4	2,129.3	1,966.7	816.3	0.78	-0.77	-0.47	
5,389.0	13.93	19.86	4,868.4	2,151.6	1,987.6	824.2	3.14	-3.12	-1.52	
5,474.0	10.50	19.16	4,951.5	2,169.5	2,004.5	830.2	4.04	-4.04	-0.82	
5,560.0	8.12	22.58	5,036.4	2,183.4	2,017.6	835.1	2.84	-2.77	3.98	
5,645.0	5.89	25.70	5,120.7	2,193.8	2,027.0	839.3	2.66	-2.62	3.67	
5,731.0	3.08	41.17	5,206.4	2,200.4	2,032.7	842.8	3.53	-3.27	17.99	
5,816.0	1.85	47.33	5,291.4	2,203.8	2,035.4	845.3	1.48	-1.45	7.25	
5,901.0	1.32	58.40	5,376.3	2,205.9	2,036.8	847.1	0.72	-0.62	13.02	
5,987.0	0.92	69.69	5,462.3	2,207.2	2,037.6	848.6	0.53	-0.47	13.13	
6,072.0	0.63	115.40	5,547.3	2,207.6	2,037.6	849.7	0.77	-0.34	53.78	
6,158.0	0.62	159.74	5,633.3	2,207.3	2,037.0	850.3	0.55	-0.01	51.56	
6,243.0	0.79	170.94	5,718.3	2,206.4	2,036.0	850.5	0.26	0.20	13.18	
6,329.0	1.14	170.77	5,804.3	2,205.2	2,034.6	850.7	0.41	0.41	-0.20	
6,414.0	0.50	102.59	5,889.3	2,204.6	2,033.6	851.2	1.25	-0.75	-80.21	
6,499.0	0.72	132.21	5,974.3	2,204.4	2,033.2	852.0	0.44	0.26	34.85	
6,585.0	1.33	149.71	6,060.3	2,203.7	2,032.0	852.9	0.79	0.71	20.35	
6,670.0	1.80	146.07	6,145.2	2,202.4	2,030.0	854.1	0.56	0.55	-4.28	
6,756.0	1.90	141.52	6,231.2	2,200.9	2,027.8	855.8	0.21	0.12	-5.29	
6,841.0	1.58	89.47	6,316.1	2,200.7	2,026.7	857.8	1.83	-0.38	-61.24	
6,926.0	1.19	91.84	6,401.1	2,201.5	2,026.7	859.9	0.46	-0.46	2.79	
7,012.0	0.88	104.37	6,487.1	2,202.0	2,026.5	861.4	0.44	-0.36	14.57	
7,097.0	0.77	105.96	6,572.1	2,202.1	2,026.2	862.6	0.13	-0.13	1.87	
7,180.0	0.77	105.96	6,655.1	2,202.3	2,025.8	863.7	0.00	0.00	0.00	

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Design:	Actual	Database:	EDM 5000.1 Single User Db

Checked By: _____	Approved By: _____	Date: _____
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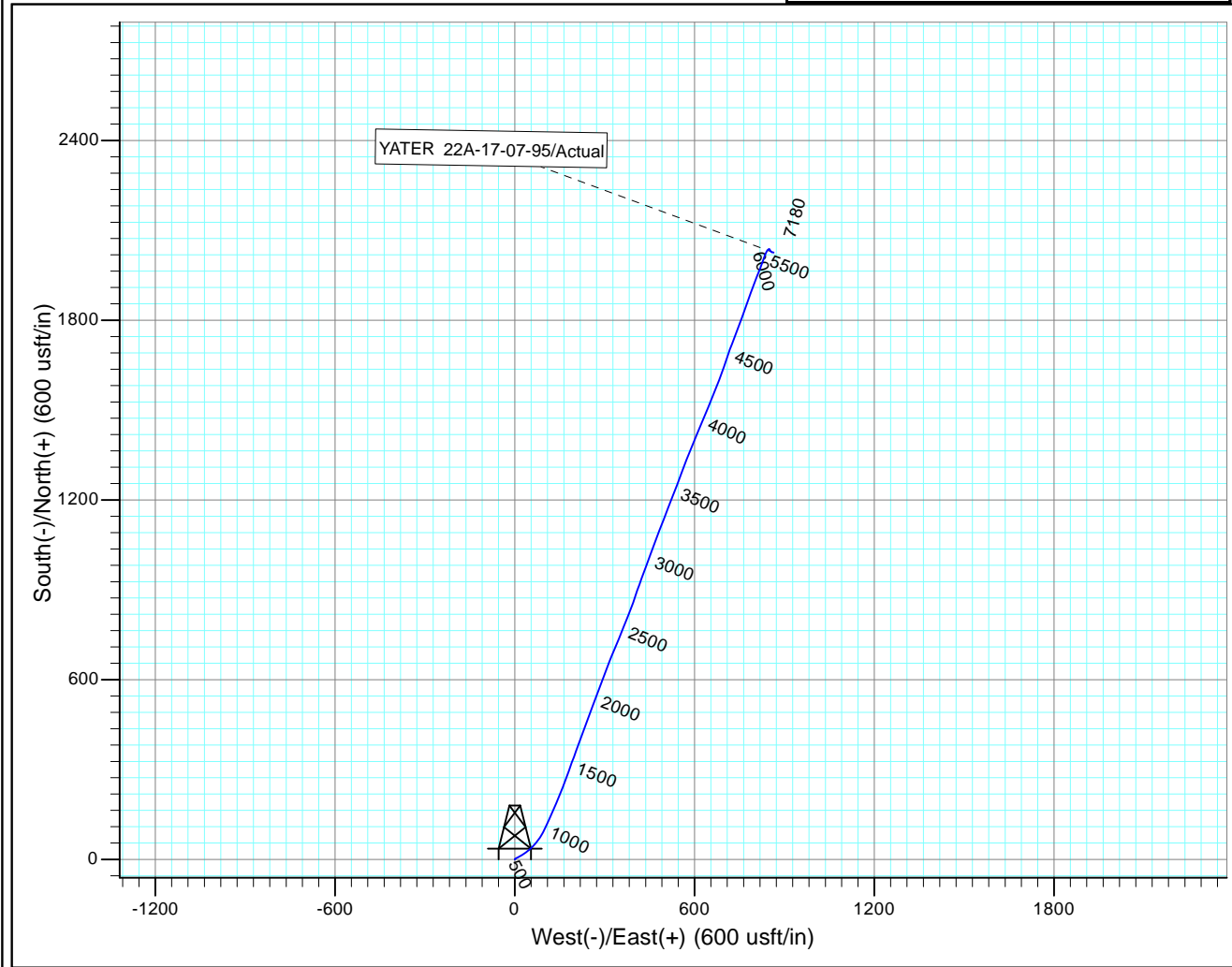
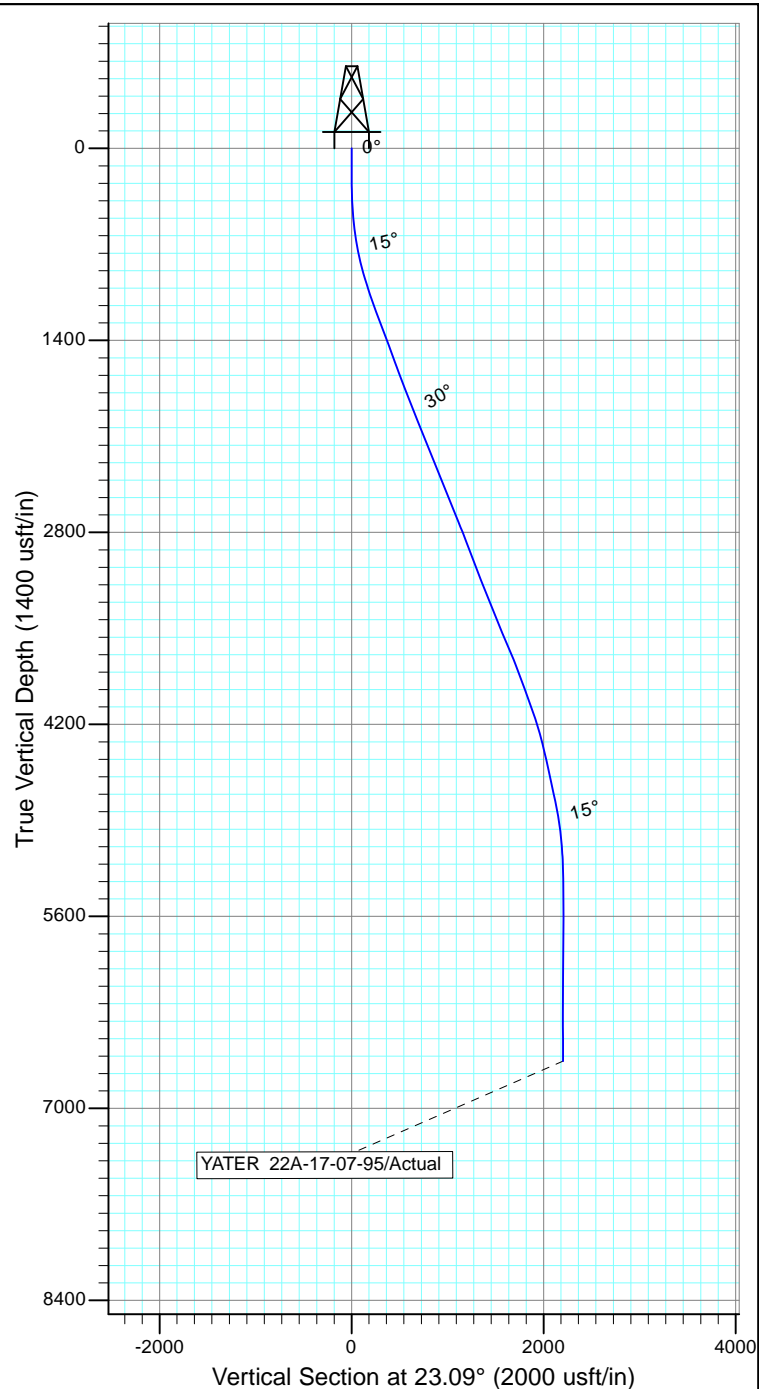


Project: Rockies Region
Site: Yater
Well: YATER 22A-17-07-95
Wellbore: Wellbore #1
Design: Actual



Azimuths to True North
Magnetic North: 9.84°

Magnetic Field
Strength: 51813.5nT
Dip Angle: 65.57°
Date: 6/15/2015
Model: IGRF2010



Design: Actual (YATER 22A-17-07-95/Wellbore #1)

Created By: Matthew Linton Date: 11:24, July 28 2015

THIS SURVEY IS CORRECT TO THE BEST OF
MY KNOWLEDGE AND IS SUPPORTED
BY ACTUAL FIELD DATA