HERITAGE SURVEY OF THE NDLAMBE BULK WATER SUPPLY SCHEME - SANDILE DAM TO CANNON ROCKS, EASTERN CAPE.

FOR EOH CES

DATE: 1 APRIL 2015

By Gavin Anderson

Umlando: Archaeological Surveys and Heritage

Management

PO Box 102532, Meerensee, 3901

Phone/fax: 035-7531785 Fax: 0865445631

Cell: 0836585362



TABLE OF CONTENT

NATIONAL HERITAGE RESOURCES ACT OF 1999 METHOD METH	INTRODUCTION	
DEFINING SIGNIFICANCE 35 RESULTS 38 DESKTOP STUDY 38 FIELD SURVEY 47 AMA01 51 AMA02 52 AMA03 53 AMA04 54 AMA05 56 AMA06 57 AMA07 58 AMA08 61 AMA09 63 AMA010 64 AMA011 65 AMA012 66 AMA013 67 AMA014 68 AMA015 69 AMA016 70 AMA017 71 AMA018 72 AMA019 73 CR05 74 CR06 77 CR07 77 CR08 77 CR09 77 CYLLERVILLE CHURCH AND CEMETERY 80 GENERAL STONE TOOLS 84 FORT PEDDIE 85 CHIEFS MSUTU & NUOKWENI MEMORIAL 90 YERGENOEG 93 <		
RESULTS	METHOD	34
DESKTOP STUDY 38 FIELD SURVEY 47 AMA01 51 AMA02 52 AMA03 53 AMA04 54 AMA05 56 AMA06 57 AMA07 58 AMA08 61 AMA09 63 AMA010 64 AMA011 65 AMA012 66 AMA013 67 AMA014 68 AMA015 69 AMA017 71 AMA018 72 AMA019 73 CR04 74 CR05 74 CR06 77 CR07 79 CUYLERVILLE CHURCH AND CEMETERY 80 GENERAL STONE TOOLS 84 FORT PEDDIE 85 CHIEFS MSUTU & NJOKWENI MEMORIAL 90 PRONTIER MEMORIAL 90 YERGENOEG 93 SIESTA 95 FAIRFAX 97 CATHCART 101	DEFINING SIGNIFICANCE	35
FIELD SURVEY. 47 AMA01 51 AMA02 52 AMA03 53 AMA04 55 AMA06 55 AMA06 57 AMA07 58 AMA08 61 AMA09 63 AMA010 63 AMA011 65 AMA011 65 AMA011 65 AMA012 66 AMA013 67 AMA014 68 AMA015 67 AMA015 70 AMA015 70 AMA016 77 AMA07 77 AMA07 77 AMA07 77 AMA07 78 AMA018 77 AMA018 77 AMA019 77 AMA018 77 AMA018 77 AMA019 78 CR04 74 CR06 77 CR07 79 CUYLERVILLE CHURCH AND CEMETERY 80 GENERAL STONE TOOLS 84 FORT PEDDIE 85 CHIEFS MSUTU & NJOKWENI MEMORIAL 90 FRONTIER MEMORIAL 92 VERGENOEG 93 SIESTA 95 FAIRFAX 97 CATHCART 101 GRANTS VALLEY 101 GRANTS VALL	RESULTS	38
FIELD SURVEY. 47 AMA01 51 AMA02 52 AMA03 53 AMA04 55 AMA06 55 AMA06 57 AMA07 58 AMA08 61 AMA09 63 AMA010 63 AMA011 65 AMA011 65 AMA011 65 AMA012 66 AMA013 67 AMA014 68 AMA015 67 AMA015 70 AMA015 70 AMA016 77 AMA07 77 AMA07 77 AMA07 77 AMA07 78 AMA018 77 AMA018 77 AMA019 77 AMA018 77 AMA018 77 AMA019 78 CR04 74 CR06 77 CR07 79 CUYLERVILLE CHURCH AND CEMETERY 80 GENERAL STONE TOOLS 84 FORT PEDDIE 85 CHIEFS MSUTU & NJOKWENI MEMORIAL 90 FRONTIER MEMORIAL 92 VERGENOEG 93 SIESTA 95 FAIRFAX 97 CATHCART 101 GRANTS VALLEY 101 GRANTS VALL	DESKTOP STUDY	38
AMA01 51 AMA02 52 AMA03 53 AMA04 54 AMA05 56 AMA06 57 AMA07 58 AMA08 61 AMA09 63 AMA010 64 AMA011 65 AMA012 66 AMA012 66 AMA011 67 AMA014 68 AMA015 67 AMA014 68 AMA015 67 AMA015 70 AMA015 70 AMA016 70 AMA016 70 AMA017 71 AMA018 72 AMA019 73 CR04 74 CR05 77 CR07 79 CUYLERVILLE CHURCH AND CEMETERY 80 GENERAL STONE TOOLS 84 FOR TPEDDIE 85 CHIEFS MSUTU & NJOKWENI MEMORIAL 90 FRONTIER MEMO		
AMA02 52 AMA03 53 AMA04 54 AMA05 56 AMA06 57 AMA07 58 AMA08 61 AMA09 63 AMA010 64 AMA011 65 AMA011 65 AMA012 66 AMA013 67 AMA014 68 AMA015 67 AMA015 69 AMA016 70 AMA016 70 AMA016 70 AMA017 71 AMA018 70 AMA019 71 AMA019 72 CR04 72 CR05 72 CR04 74 CR05 74 CR06 77 CR07 CR07 72 CRVLERVILLE CHURCH AND CEMETERY 80 GENERAL STONE TOOLS 84 FORT PEDDIE 68 CHIEFS MSUTU & NJOKWENI MEMORIAL 90 FRONTIER MEMORIAL 92 VERGENOEG 93 SIESTA 95 FAIRFAX 97 FAIRFAX 97 FAIRFAX 97 CATHORARY 91 ARUO14 ARUO2 & ARUO3 113 ARUO14 115 GWCO1 118 CONCLUSION 171 CROCULISION 172 CROCOLUSION 173 CROCOLU		
AMA03 53 AMA04 554 AMA05 566 AMA06 577 AMA07 588 AMA08 618 AMA09 63 AMA010 64 AMA011 65 AMA012 66 AMA013 66 AMA013 66 AMA015 67 AMA014 68 AMA015 69 AMA015 70 AMA016 77 AMA016 77 AMA017 71 AMA018 72 AMA019 77 AMA018 72 AMA019 77 AMA019 7		
AMA04 54 AMA05 56 AMA06 57 AMA07 58 AMA08 61 AMA09 63 AMA010 64 AMA011 65 AMA012 66 AMA013 67 AMA015 68 AMA015 70 AMA015 70 AMA015 70 AMA016 70 AMA016 70 AMA017 71 AMA018 71 AMA018 71 AMA019 72 AMA019 73 CRO4 74 CRO5 77 CRO7 79 CUYLERVILLE CHURCH AND CEMETERY 80 CENERAL STONE TOOLS 84 FORT PEDDIE 85 CHIEFS MSUTU & NJOKWENI MEMORIAL 92 VERGENOEG 93 SIESTA 95 FAIRFAX 97 CATHCART 101 GRANTS VALLEY 103 GENERAL FARMS 103 GENERAL FARMS 103 ARU05 113 ARU06 120 AMA06MENT PLAN 118 CONCLUSION 120 AMA06MENT PLAN 118 CONCLUSION 120 AMA014 115 GWCO1 118 ARU05 113 ARU05 113 ARU05 113 ARU05 113 ARU05 113 ARU05 113 ARU06 120 APPENDIX A 123		
AMA05 56 AMA06 57 AMA07 58 AMA08 61 AMA09 63 AMA010 64 AMA011 65 AMA012 66 AMA013 66 AMA015 67 AMA015 69 AMA016 77 AMA016 77 AMA016 77 AMA017 70 AMA017 71 AMA018 72 AMA019 73 CR04 77 CR07 77 CR07 77 CR07 77 CUYLERVILLE CHURCH AND CEMETERY 80 GENERAL STONE TOOLS 84 FORT PEDDIE 85 CHIEFS MSUTU & NJOKWENI MEMORIAL 92 VERGENOEG 93 SIESTA 95 FAIRRAX 95 FAIRRAX 97 CATHCART 101 GRANTS VALLEY 101 GRANTS VALLEY 101 GRANTS VALLEY 101 GRANTS VALLEY 107 EMGWASHENI/MILKWOOD TREE 103 ARU05 113 ARU05 113 ARU05 113 ARU05 113 ARU05 113 ARU05 113 ARU061 116 MANAGEMENT PLAN 118 CONCLUSION 120 EFEFENCES 120 APPENDIX A 120 EFEFENCES 120 APPENDIX A 120 EFEFENCES 120 APPENDIX A 120 EFEFENCES 120 EFEFENCES 120 EFEFENCES 120 EFEFENCES 120 EFEFENCES 120 EFEFERCES 120 EFEFER		
AMA06 57 AMA07 58 AMA08 61 AMA09 63 AMA010 64 AMA011 65 AMA012 66 AMA013 67 AMA015 69 AMA015 69 AMA016 70 AMA016 71 AMA018 72 AMA019 73 CR04 74 CR06 77 CR07 79 CUYLERVILLE CHURCH AND CEMETERY 80 GENERAL STONE TOOLS 84 FORT PEDDIE 85 CHIEFS MSUTU & NJOKWENI MEMORIAL 90 FRONTIER MEMORIAL 90 ARANTS VALLEY 97 CATHCART 101 GRANTS VALLEY 103 GENERAL FARMS 106 MCDOUGAL CEMETERY 107 EMQWASHENIAMISMS 113 ARU014 115 GENERAL FARMS 106 MCDOUGAL CEMETERY 107 EMQWASHENIAMISMS 113 ARU014 115 GWC01 111 MANAGEMENT PLAN 112		_
AMA07 AMA08 AMA08 AMA09 AMA010 AMA011 AMA012 AMA012 AMA013 AMA015 AMA015 AMA016 AMA016 AMA017 AMA016 AMA017 AMA018 AMA019 CR06 CR06 T7 CR07 CR07 CR07 CUYLERVILLE CHURCH AND CEMETERY BENORMEN BENOTH		
AMA08 61 AMA09 63 AMA010 64 AMA011 65 AMA012 66 AMA013 67 AMA014 68 AMA015 69 AMA016 70 AMA017 71 AMA018 72 AMA019 73 CR04 74 CR05 74 CR06 77 CUYLERVILLE CHURCH AND CEMETERY 80 GENERAL STONE TOOLS 84 FORT PEDDIE 85 CHIEFS MSUTU & NJOKWENI MEMORIAL 90 FRONTIER MEMORIAL 92 VERGENOEG 93 SIESTA 95 FAIRFAX 97 CATHCART 101 GRANTS VALLEY 101 GRANTS VALLEY 101 GRANTS VALLEY 107 EMQWASHENIMILKWOOD TREE 109 ARU01 ARU02 & ARU03 113 ARU05 113 ARU05 113 ARU05 116 MANAGEMENT PLAN 118 CONCLUSION 120 CMEERICES 120 PEFERNICES 120		
AMA09		
AMA010 64 AMA011 65 AMA012 66 AMA013 67 AMA014 68 AMA015 69 AMA016 70 AMA017 71 AMA018 72 AMA019 73 CR04 74 CR05 74 CR06 77 CR07 79 CUYLERVILLE CHURCH AND CEMETERY 80 GENERAL STONE TOOLS 84 FORT PEDDIE 85 CHIEFS MSUTU & NJOKWENI MEMORIAL 90 FRONTIER MEMORIAL 90 FRONTIER MEMORIAL 90 FRONTIER MEMORIAL 90 FRONTIER MEMORIAL 90 GENERAL STONE TOOLS 93 SIESTA 95 FAIRFAX 97 CATHCART 101 GRANTS VALLEY 101 GRANTS V		
AMA011		
AMA012		
AMA013		
AMA014 68 AMA015 69 AMA016 70 AMA017 71 AMA018 72 AMA019 73 CR04 74 CR05 74 CR06 77 CR07 79 CUYLERVILLE CHURCH AND CEMETERY 80 GENERAL STONE TOOLS 84 FORT PEDDIE 85 CHIEFS MSUTU & NJOKWENI MEMORIAL 90 FRONTIER MEMORIAL 92 VERGENOEG 93 SIESTA 95 FAIRFAX 97 CATHCART 101 GRANTS VALLEY 97 CATHCART 101 GRANTS VALLEY 101 GRANTS VALLEY 101 GRANTS VALLEY 103 GENERAL FARMS 106 MCDOUGAL CEMETERY 107 EMQWASHENI/MILKWOOD TREE 109 ARU01, ARU02 & ARU03 113 ARU014 115 GWC01 118 CONCLUSION 120 CREFERENCES 120 APPENDIX A 123		
AMA015	AMA013	67
AMA016	AMA014	68
AMA017	AMA015	69
AMA018	AMA016	70
AMA019	AMA017	71
AMA019	AMA018	72
CR04 74 CR05 74 CR06 77 CR07 79 CUYLERVILLE CHURCH AND CEMETERY 80 GENERAL STONE TOOLS 84 FORT PEDDIE 85 CHIEFS MSUTU & NJOKWENI MEMORIAL 90 FRONTIER MEMORIAL 92 VERGENOEG 93 SIESTA 95 FAIRFAX 97 CATHCART 101 GRANTS VALLEY 103 GENERAL FARMS 106 MCDOUGAL CEMETERY 107 EMQWASHENI/MILKWOOD TREE 109 ARU01, ARU02 & ARU03 113 ARU05 113 ARU014 115 GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123		
CR05 74 CR06 77 CR07 79 CUYLERVILLE CHURCH AND CEMETERY 80 GENERAL STONE TOOLS 84 FORT PEDDIE 85 CHIEFS MSUTU & NJOKWENI MEMORIAL 90 FRONTIER MEMORIAL 92 VERGENOEG 93 SIESTA 95 FAIRFAX 97 CATHCART 101 GRANTS VALLEY 103 GENERAL FARMS 106 MCDOUGAL CEMETERY 107 EMQWASHENI/MILKWOOD TREE 109 ARU01, ARU02 & ARU03 113 ARU05 113 ARU014 115 GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123		
CR06 77 CR07 79 CUYLERVILLE CHURCH AND CEMETERY 80 GENERAL STONE TOOLS 84 FORT PEDDIE 85 CHIEFS MSUTU & NJOKWENI MEMORIAL 90 FRONTIER MEMORIAL 92 VERGENOEG 93 SIESTA 95 FAIRFAX 97 CATHCART 101 GRANTS VALLEY 103 GENERAL FARMS 106 MCDOUGAL CEMETERY 107 EMQWASHENI/MILKWOOD TREE 109 ARU01, ARU02 & ARU03 113 ARU014 115 GWC01 116 MANAGEMENT PLAN 116 CONCLUSION 120 REFERENCES 120 APPENDIX A 123		
CR07 79 CUYLERVILLE CHURCH AND CEMETERY 80 GENERAL STONE TOOLS 84 FORT PEDDIE 85 CHIEFS MSUTU & NJOKWENI MEMORIAL 90 FRONTIER MEMORIAL 92 VERGENOEG 93 SIESTA 95 FAIRFAX 97 CATHCART 101 GRANTS VALLEY 103 GENERAL FARMS 106 MCDOUGAL CEMETERY 107 EMQWASHENI/MILKWOOD TREE 109 ARU01, ARU02 & ARU03 113 ARU05 113 ARU014 115 GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123		
CUYLERVILLE CHURCH AND CEMETERY 80 GENERAL STONE TOOLS 84 FORT PEDDIE 85 CHIEFS MSUTU & NJOKWENI MEMORIAL 90 FRONTIER MEMORIAL 92 VERGENOEG 93 SIESTA 95 FAIRFAX 97 CATHCART 101 GRANTS VALLEY 103 GENERAL FARMS 106 MCDOUGAL CEMETERY 107 EMQWASHENI/MILKWOOD TREE 109 ARU01, ARU02 & ARU03 113 ARU05 113 ARU014 115 GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123		
GENERAL STONE TOOLS 84 FORT PEDDIE 85 CHIEFS MSUTU & NJOKWENI MEMORIAL 90 FRONTIER MEMORIAL 92 VERGENOEG 93 SIESTA 95 FAIRFAX 97 CATHCART 101 GRANTS VALLEY 103 GENERAL FARMS 106 MCDOUGAL CEMETERY 107 EMQWASHENI/MILKWOOD TREE 109 ARU01, ARU02 & ARU03 113 ARU05 113 ARU014 115 GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123		
FORT PEDDIE 85 CHIEFS MSUTU & NJOKWENI MEMORIAL 90 FRONTIER MEMORIAL 92 VERGENOEG 93 SIESTA 95 FAIRFAX 97 CATHCART 101 GRANTS VALLEY 103 GENERAL FARMS 106 MCDOUGAL CEMETERY 107 EMQWASHENI/MILKWOOD TREE 109 ARU01, ARU02 & ARU03 113 ARU05 113 ARU014 115 GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123		
CHIEFS MSUTU & NJOKWENI MEMORIAL 90 FRONTIER MEMORIAL 92 VERGENOEG 93 SIESTA 95 FAIRFAX 97 CATHCART 101 GRANTS VALLEY 103 GENERAL FARMS 106 MCDOUGAL CEMETERY 107 EMQWASHENI/MILKWOOD TREE 109 ARU01, ARU02 & ARU03 113 ARU05 113 ARU014 115 GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123		
FRONTIER MEMORIAL 92 VERGENOEG 93 SIESTA 95 FAIRFAX 97 CATHCART 101 GRANTS VALLEY 103 GENERAL FARMS 106 MCDOUGAL CEMETERY 107 EMQWASHENI/MILKWOOD TREE 109 ARU01, ARU02 & ARU03 113 ARU05 113 ARU014 115 GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123		
VERGENOEG 93 SIESTA 95 FAIRFAX 97 CATHCART 101 GRANTS VALLEY 103 GENERAL FARMS 106 MCDOUGAL CEMETERY 107 EMQWASHENI/MILKWOOD TREE 109 ARU01, ARU02 & ARU03 113 ARU05 113 ARU014 115 GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123		
SIESTA 95 FAIRFAX 97 CATHCART 101 GRANTS VALLEY 103 GENERAL FARMS 106 MCDOUGAL CEMETERY 107 EMQWASHENI/MILKWOOD TREE 109 ARU01, ARU02 & ARU03 113 ARU05 113 ARU014 115 GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123		
FAIRFAX 97 CATHCART 101 GRANTS VALLEY 103 GENERAL FARMS 106 MCDOUGAL CEMETERY 107 EMQWASHENI/MILKWOOD TREE 109 ARU01, ARU02 & ARU03 113 ARU05 113 ARU014 115 GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123		
CATHCART 101 GRANTS VALLEY 103 GENERAL FARMS 106 MCDOUGAL CEMETERY 107 EMQWASHENI/MILKWOOD TREE 109 ARU01, ARU02 & ARU03 113 ARU05 113 ARU014 115 GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123		
GRANTS VALLEY 103 GENERAL FARMS 106 MCDOUGAL CEMETERY 107 EMQWASHENI/MILKWOOD TREE 109 ARU01, ARU02 & ARU03 113 ARU05 113 ARU014 115 GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123		
GENERAL FARMS 106 MCDOUGAL CEMETERY 107 EMQWASHENI/MILKWOOD TREE 109 ARU01, ARU02 & ARU03 113 ARU05 113 ARU014 115 GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123		
MCDOUGAL CEMETERY 107 EMQWASHENI/MILKWOOD TREE 109 ARU01, ARU02 & ARU03 113 ARU05 115 GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123		
EMQWASHENI/MILKWOOD TREE 109 ARU01, ARU02 & ARU03 113 ARU05 113 ARU014 115 GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123		
ARU01, ARU02 & ARU03 113 ARU05 113 ARU014 115 GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123		
ARU05 113 ARU014 115 GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123	EMQWASHENI/MILKWOOD TREE	109
ARU014 115 GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123	ARU01, ARU02 & ARU03	113
GWC01 116 MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123	ARU05	113
MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123	ARU014	115
MANAGEMENT PLAN 118 CONCLUSION 120 REFERENCES 120 APPENDIX A 123	GWC01	116
CONCLUSION		
REFERENCES		
APPENDIX A		

TABLE OF FIGURES

FIG. 1 GENERAL LOCATION OF THE NDLAMBE PIPELINE	6
FIG. 2A: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE	7
FIG. 2B: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE	
FIG. 2C: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE	
FIG. 2D: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE	
FIG. 2E: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE	
FIG. 2F: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE	
FIG. 2G: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE	
FIG. 2H: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE	
FIG. 2I: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE	
FIG. 2J: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE	
FIG. 2K: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE	
FIG. 2L: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE	
FIG. 2M: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE	
FIG. 3A: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE	
FIG. 3B: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE	
FIG. 3C: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE	
FIG. 3D: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE	
FIG. 3E: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE	
FIG. 3F: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE	
FIG. 3G: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE	
FIG. 3H: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE	
FIG. 3I: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE	
FIG. 3J: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE	
FIG. 3K: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINEFIG. 3L: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE	
TABLE 1: SAHRA GRADINGS FOR HERITAGE SITES TABLE 2: LOCATION OF DESKTOP HERITAGE SITES	
FIG. 4: LOCATION OF SITES FROM THE 1954 – 1968 TOPOGRAPHICAL MAPS	
TABLE 3: LOCATION OF SITES FROM THE 1934 - 1966 TOPOGRAPHICAL MAPS	
FIGURE 5a: LOCATION OF NORTHERN RECORDED SITES	
FIGURE 5b: LOCATION OF SOUTHERN RECORDED SITES	
FIG. 6: CEMETERY AT AMA01	
FIG. 7: BUILDINGS AT AMA02	
FIG. 8: CEMETERY AT AMA03	
FIG. 9: TERRACING AT AMA04	
FIG. 10: LOCATION OF FEATURES RECORDED BY KRUGER (2014)	55
FIG. 11: CEMETERY AT AMA05	
FIG. 12: CEMETERY AT AMA0	
FIG. 13: BURNS HILL IN 1942	
FIG. 14: BUILDING & TREES AT AMA07	
FIG. 15: PRE-1950S BUILDING AT AMA07	
FIG. 16: CHURCH AT AMA08	
FIG. 17: DRIVEWAY ENTRANCE WALLING AT AMA09	63
FIG. 18: BUILDING AT AMA010	
FIG. 19: CEMETERY AT AMA011	
FIG. 20: CEMETERY AT AMA011	
FIG. 21: POSSIBLE GRAVE AT AMA013	67
FIG. 22: GRAVE AT AMA014	68
FIG. 23: HOUSE FOUNDATIONS AT AMA015	69
FIG. 24: HOUSE FOUNDATIONS AT AMA016	
FIG. 25: CEMETERY AT AMA017	

INTRODUCTION

"Amatola Water has been appointed by the Department of Water and Sanitation (DWS), on behalf of Ndlambe Municipality, to implement a regional water supply project within the Ndlambe Municipality in the Eastern Cape Province of South Africa. The purpose of the water supply scheme is to augment the existing water supply in the municipality, which is currently under severe strain, particularly in the summer months due to the large influx of tourists to the coastal towns of Port Alfred, Kenton-on-Sea and Boesmansrivier, and others.

It is proposed that the water supply for this augmentation be sourced from the Sandile Dam, on the Keiskamma River. Raw water will be treated at the existing Sandile Water Treatment Works, before it is reticulated to its end point at Cannon Rocks. The main pipeline will be approximately 180 km long, with off-take pipelines reticulating water to each of the major towns along the route.

The pipeline will traverse two large rivers; the Keiskamma River and the Fish River. Smaller rivers affected will include the Kariega, Kasouga, West and East Kleinemonde, Kap, Boesmansrivier, Kowie, and others.

The pipeline from Sandile dam to Cannon Rocks will be approximately 180 km long, with much of the pipeline constructed using pipes with an internal diameter of more than 0.36 meters" (CES BID 2015).

Parts of this line route was previously surveyed (Umlando 2013). This report will collate the previous and new sites in relation to the existing line route.

FIG. 1 GENERAL LOCATION OF THE NDLAMBE PIPELINE

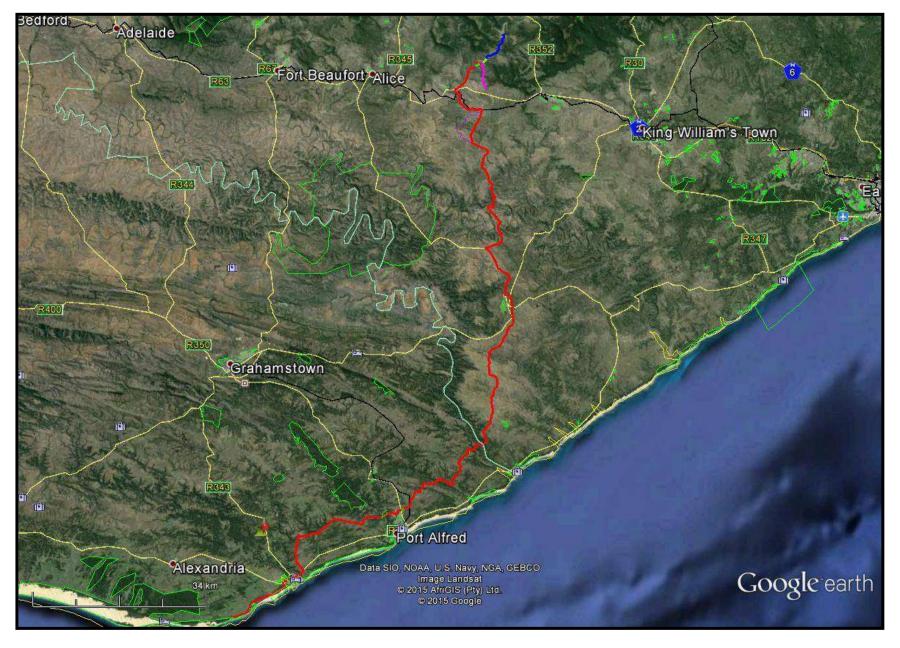


FIG. 2A: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE



FIG. 2B: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE



FIG. 2C: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE



FIG. 2D: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE



FIG. 2E: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE

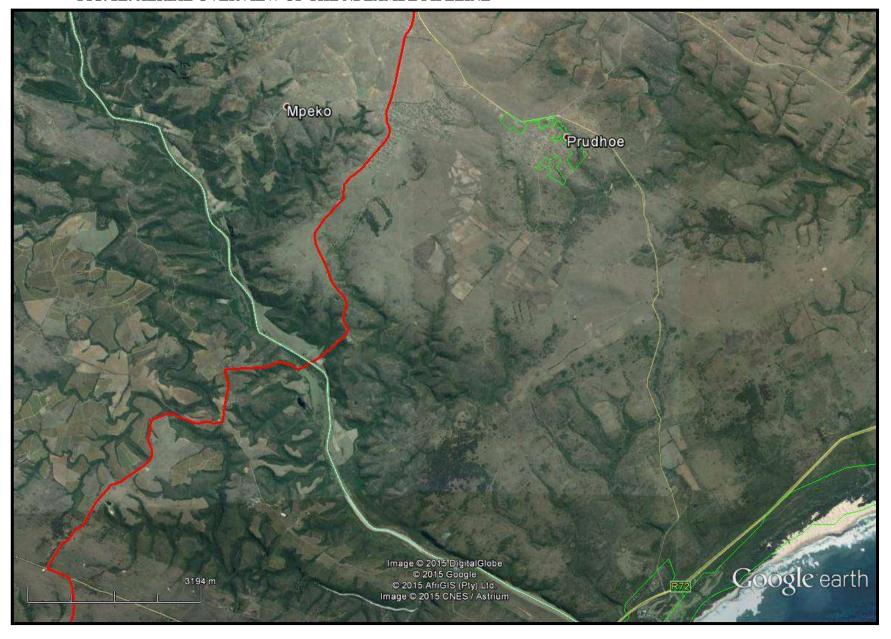


FIG. 2F: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE



FIG. 2G: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE



FIG. 2H: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE

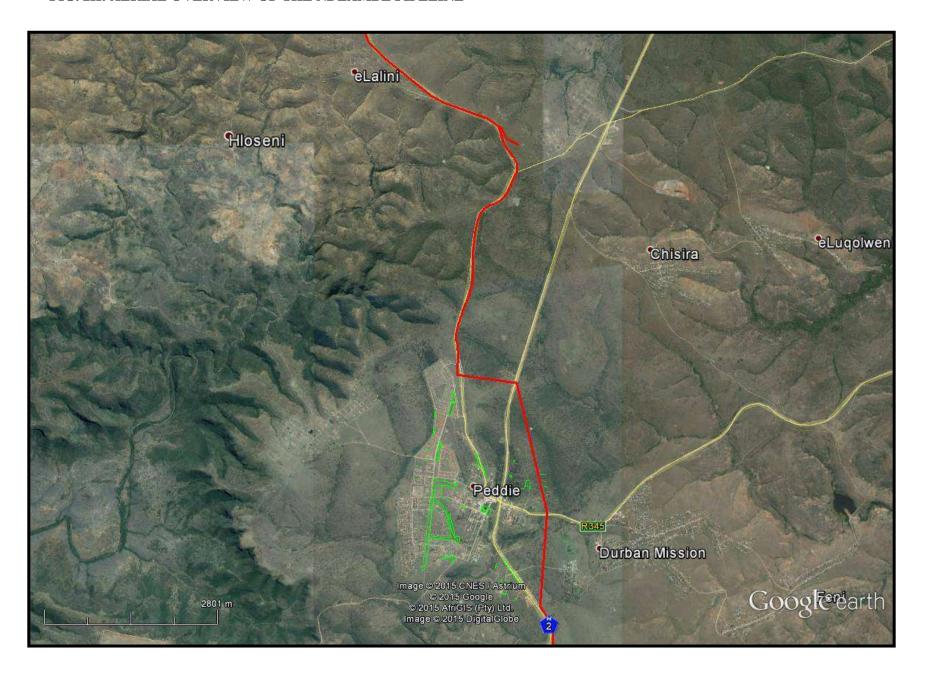


FIG. 2I: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE

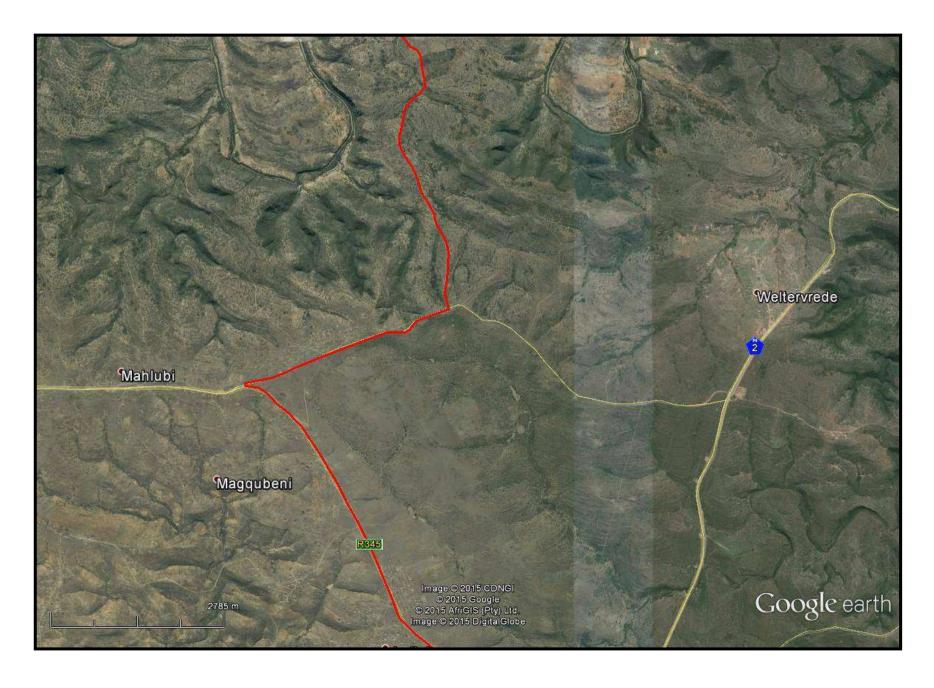


FIG. 2J: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE



FIG. 2K: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE



FIG. 2L: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE

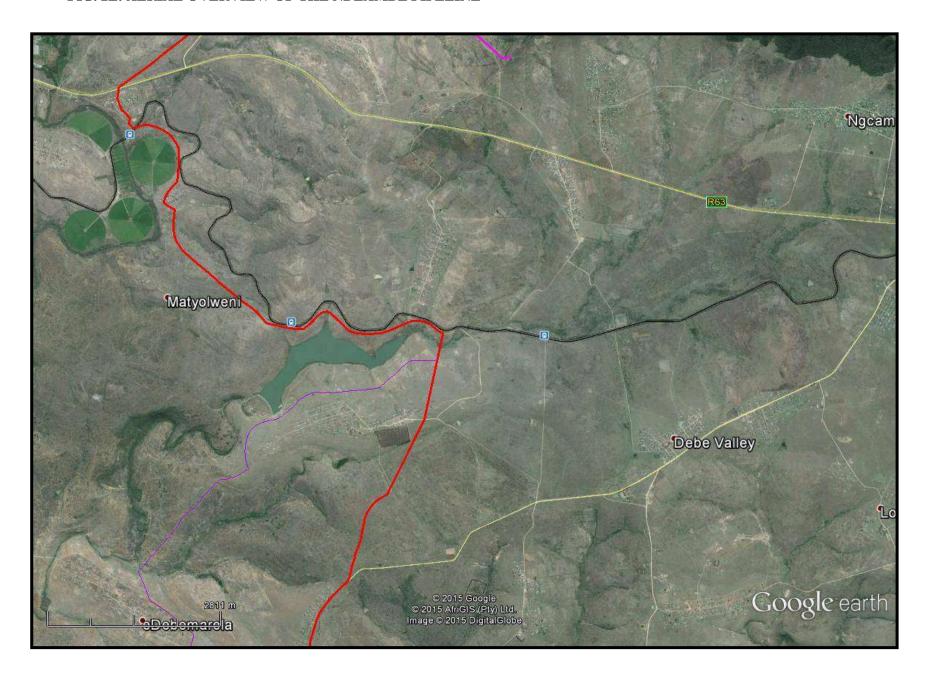


FIG. 2M: AERIAL OVERVIEW OF THE NDLAMBE PIPELINE

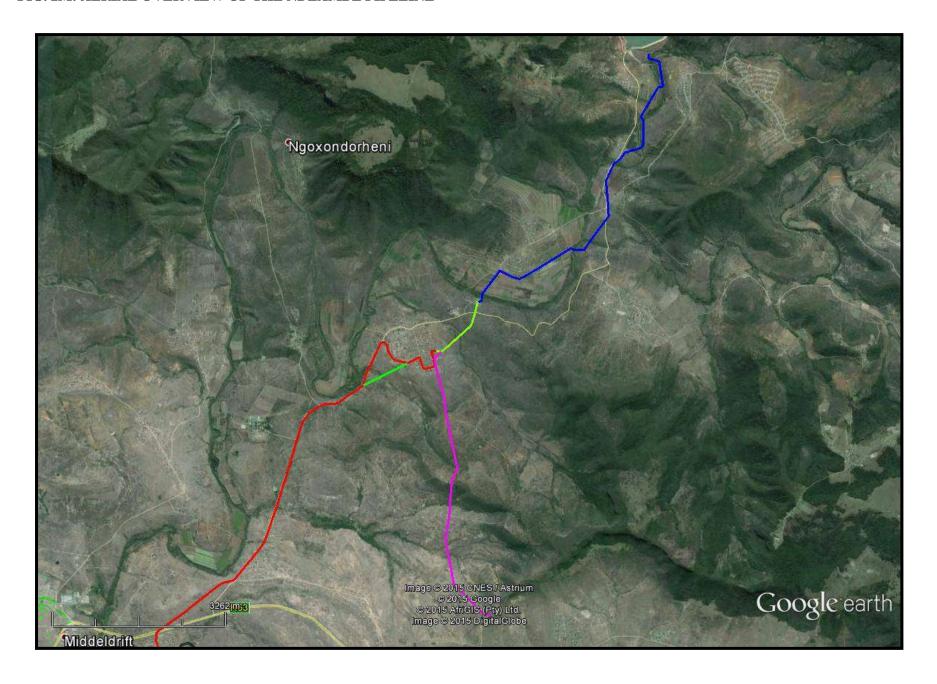


FIG. 3A: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE

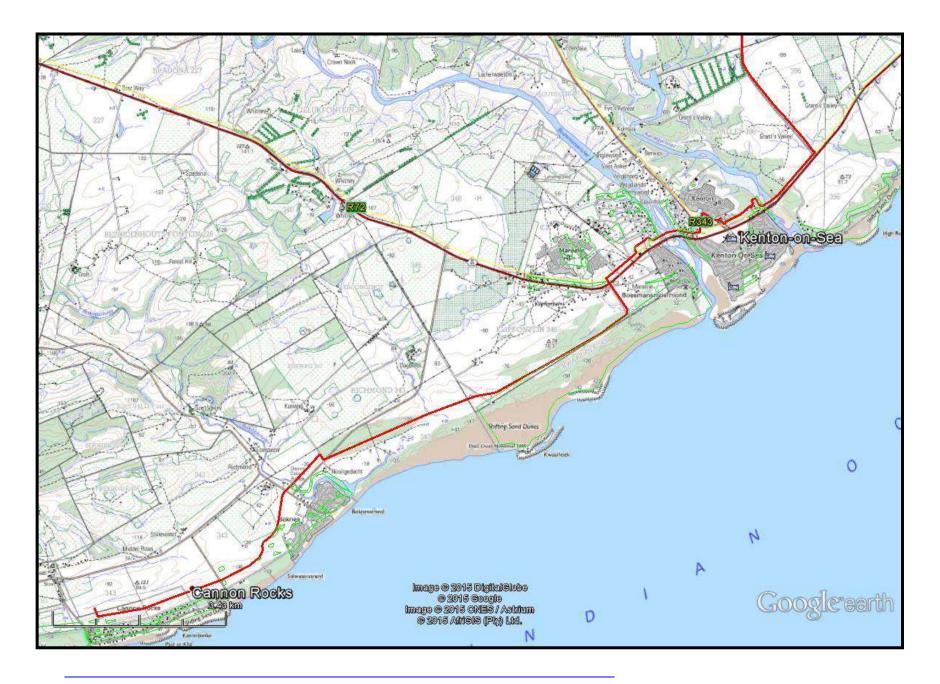


FIG. 3B: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE

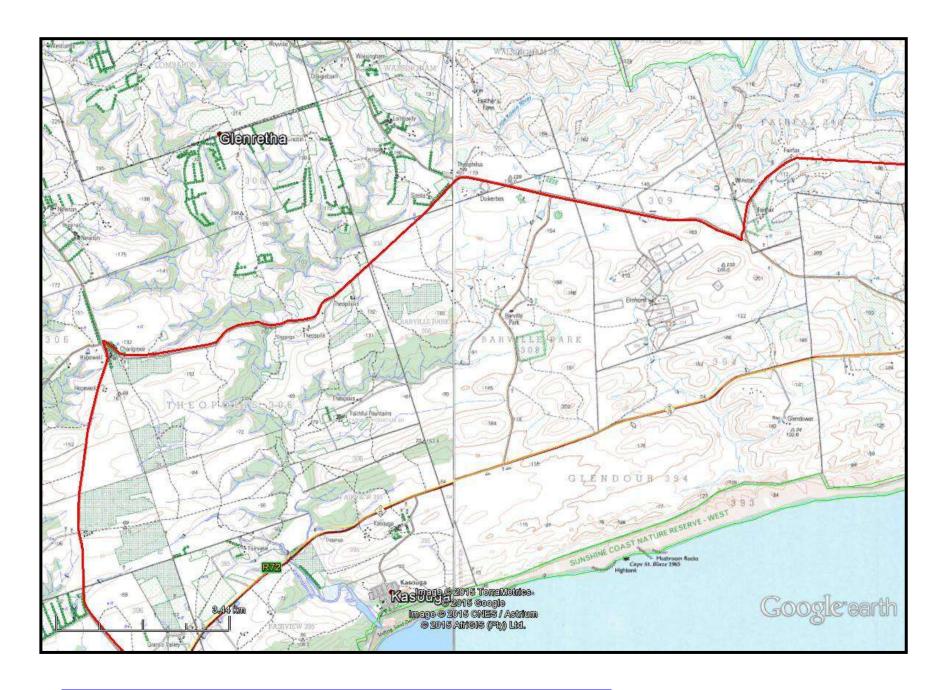


FIG. 3C: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE

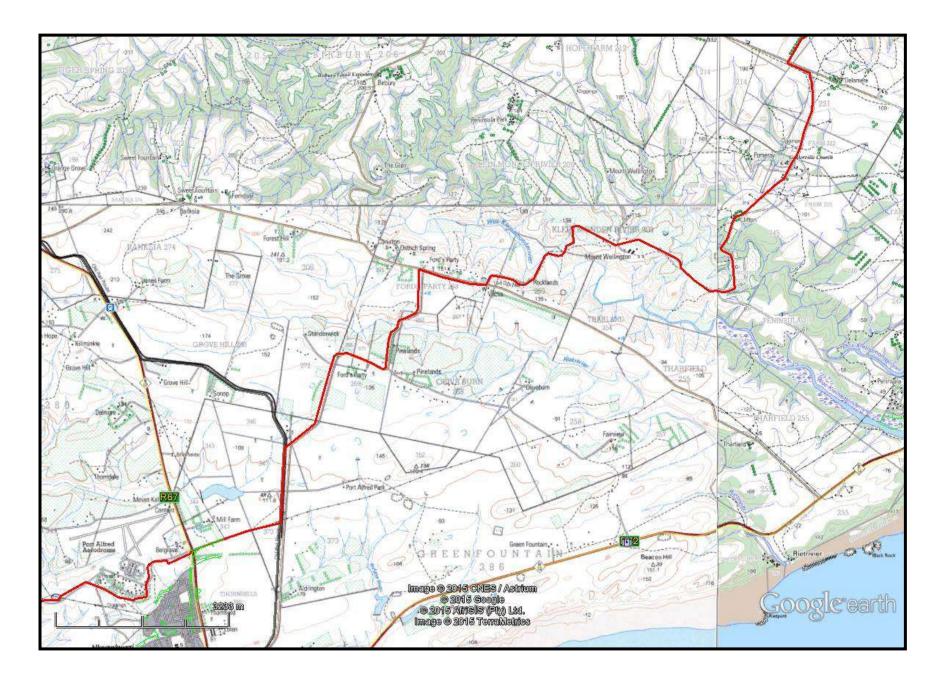


FIG. 3D: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE

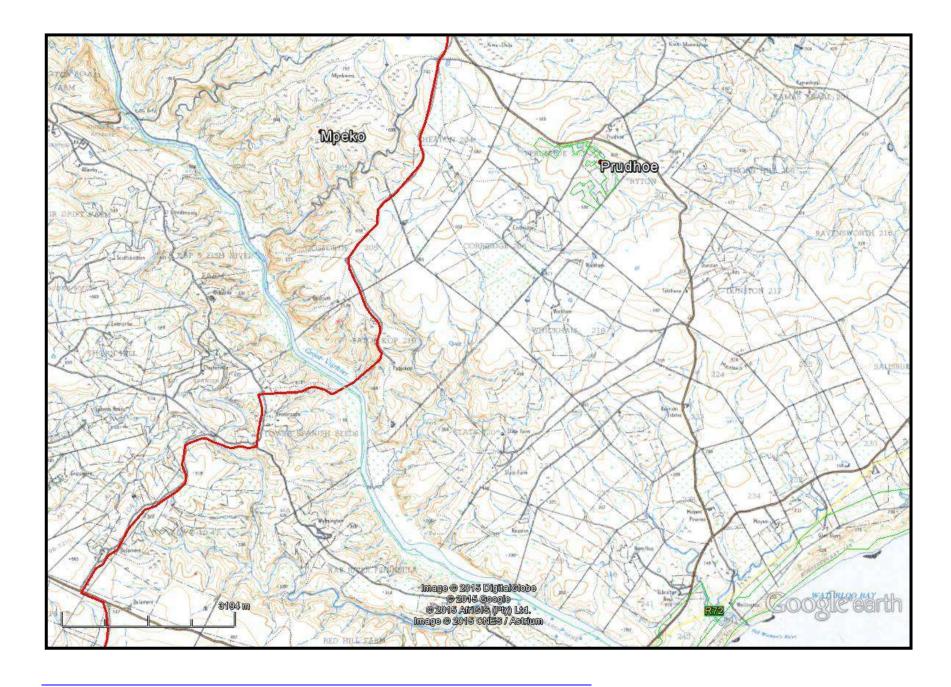


FIG. 3E: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE

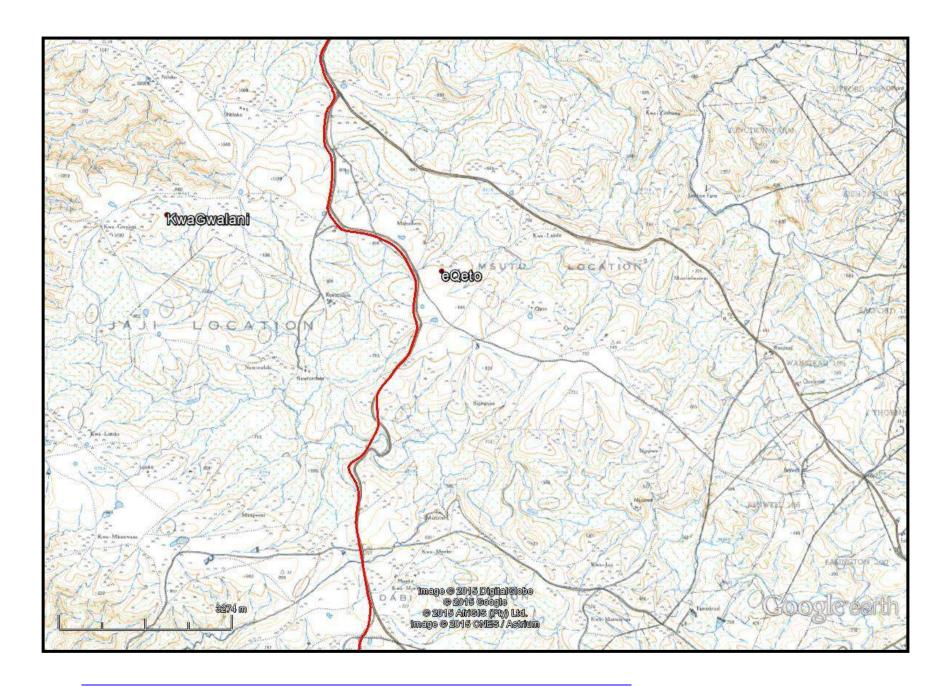


FIG. 3F: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE

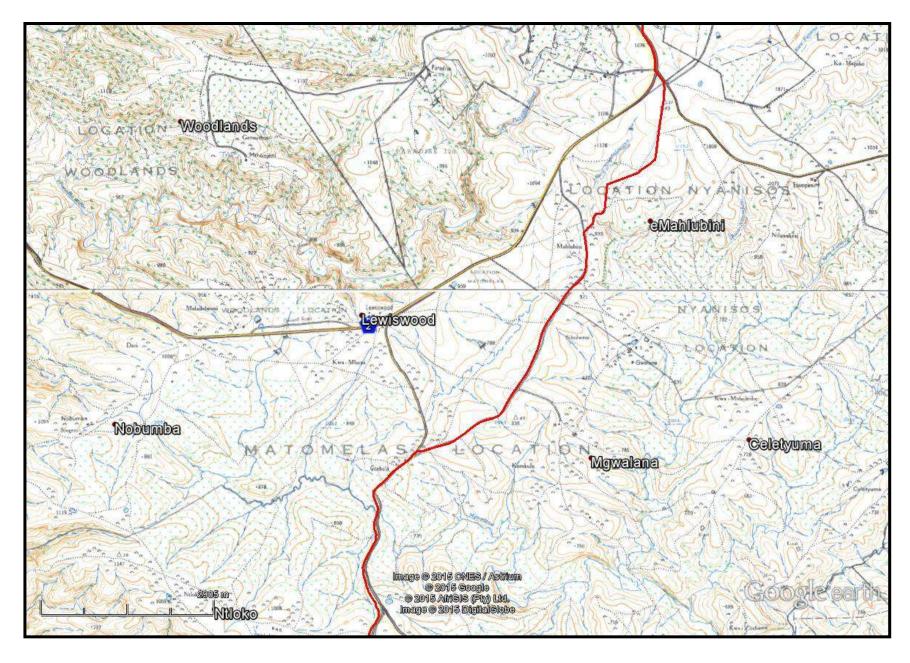


FIG. 3G: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE

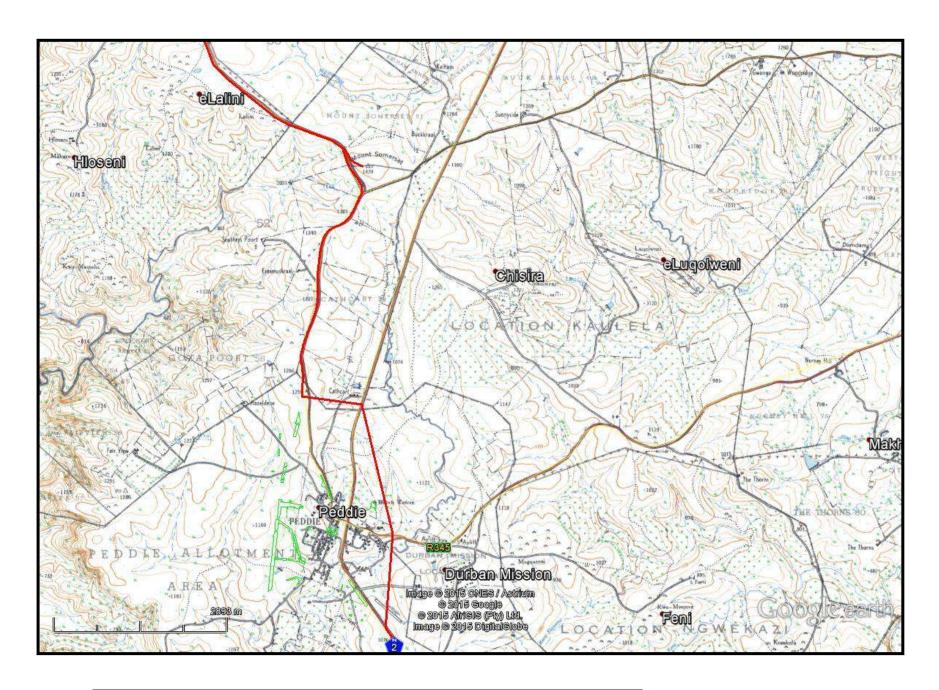


FIG. 3H: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE

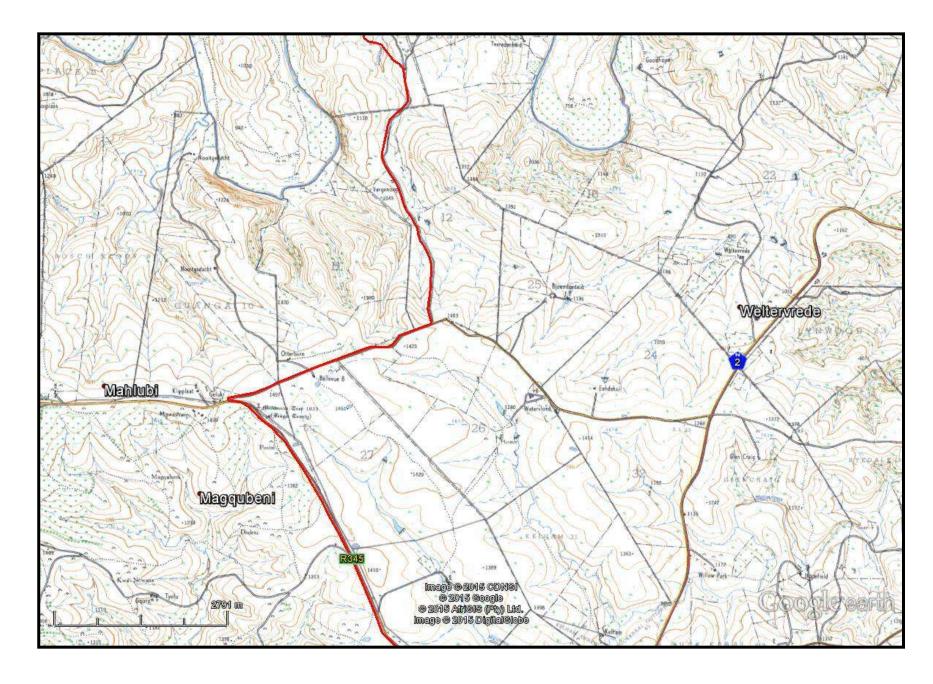


FIG. 3I: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE

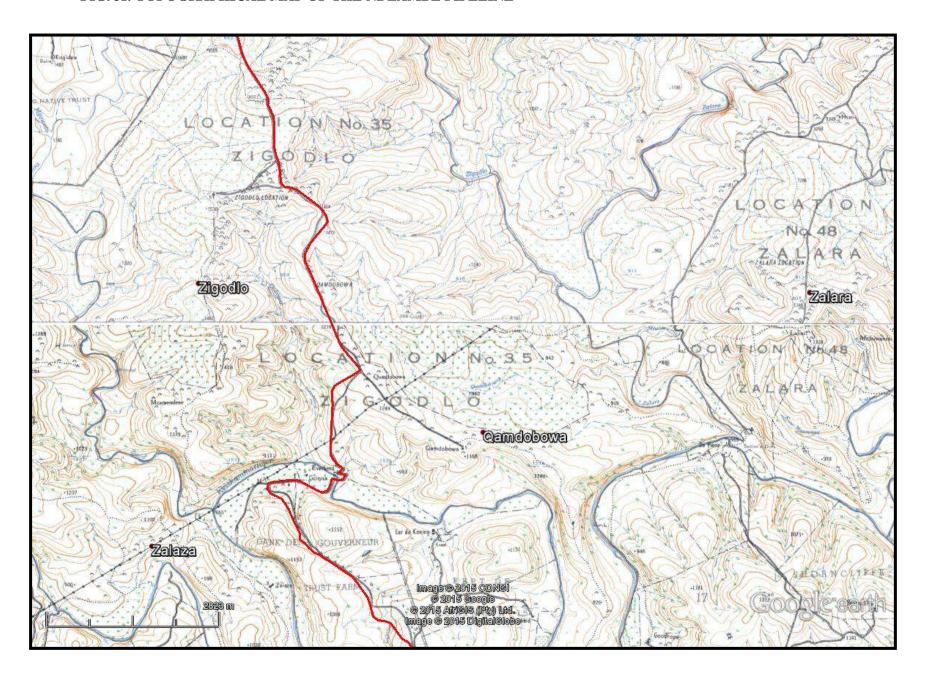


FIG. 3J: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE

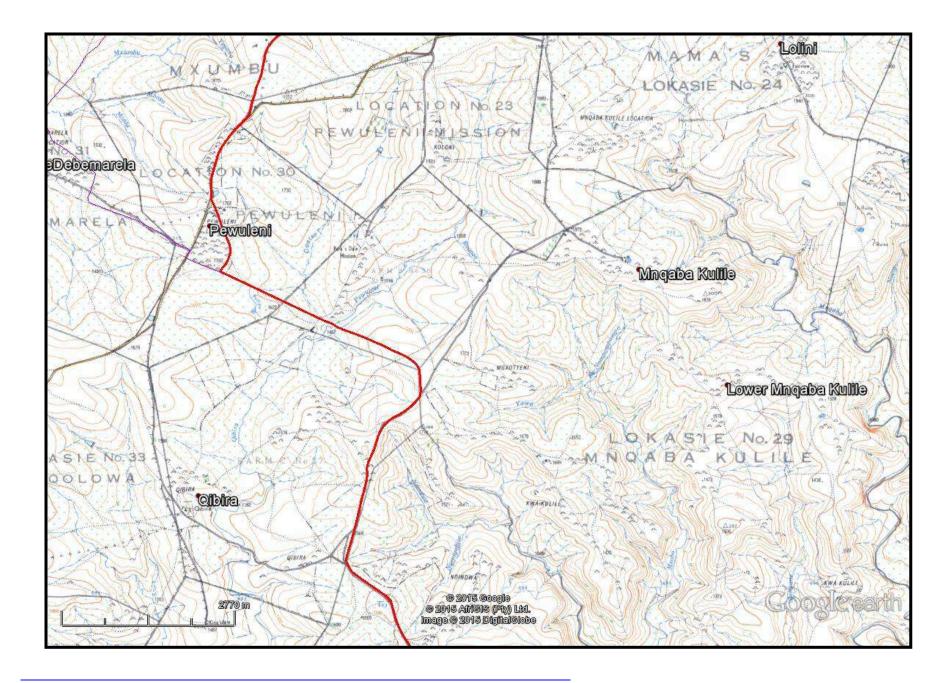


FIG. 3K: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE

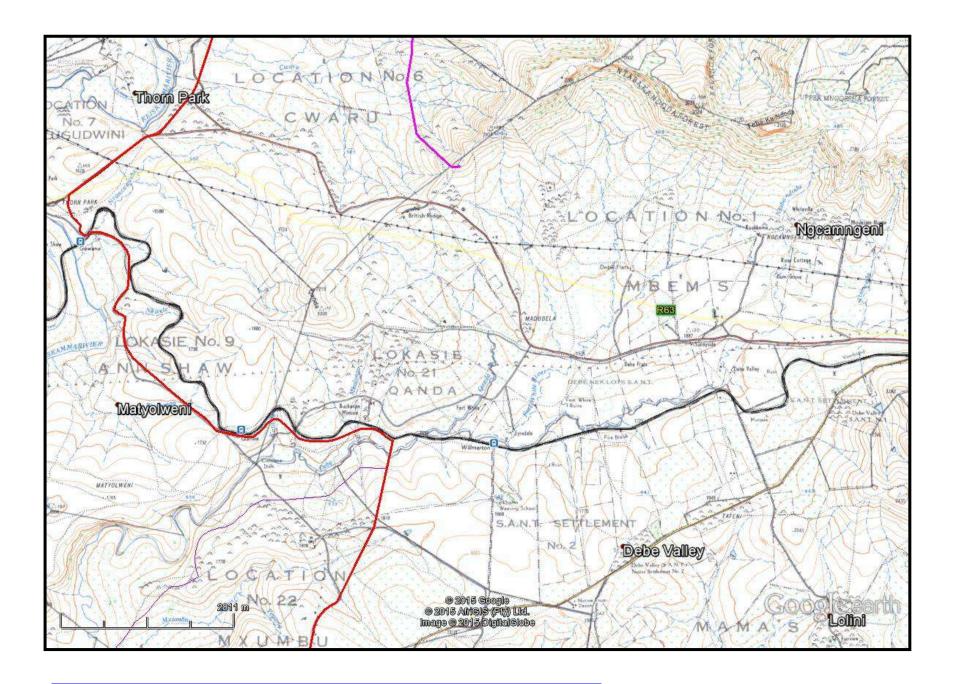
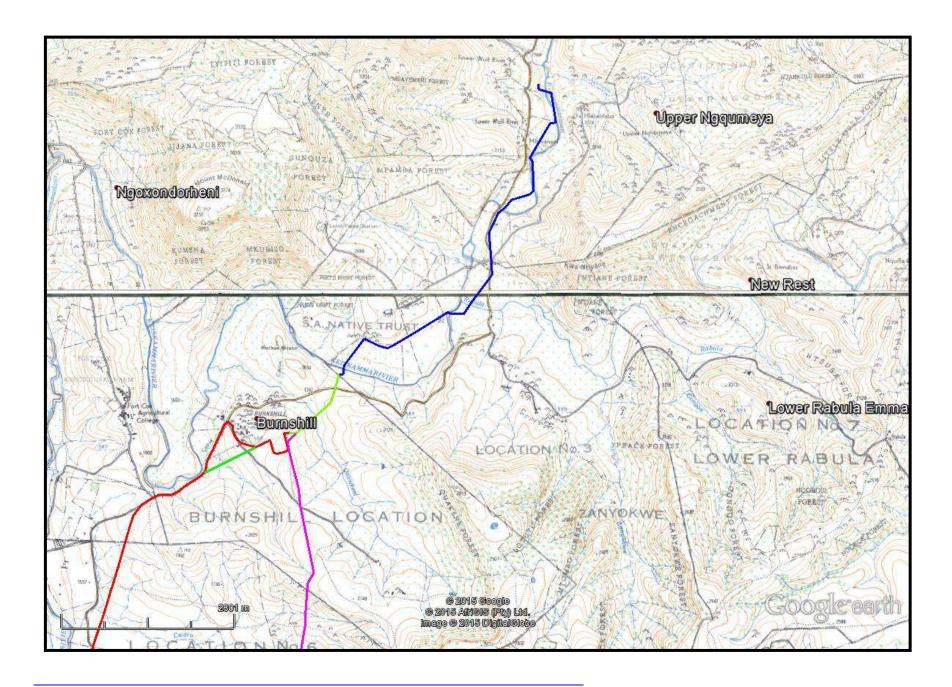


FIG. 3L: TOPOGRAPHICAL MAP OF THE NDLAMBE PIPELINE



NATIONAL HERITAGE RESOURCES ACT OF 1999

The National Heritage Resources Act of 1999 (pp 12-14) protects a variety of heritage resources. This are resources are defined as follows:

- "For the purposes of this Act, those heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations must be considered part of the national estate and fall within the sphere of operations of heritage resources authorities.
- 2. Without limiting the generality of subsection (1), the national estate may include—
 - 2.1. Places, buildings, structures and equipment of cultural significance;
 - 2.2. Places to which oral traditions are attached or which are associated with living heritage;
 - 2.3. Historical settlements and townscapes;
 - 2.4. Landscapes and natural features of cultural significance;
 - 2.5. Geological sites of scientific or cultural importance;
 - 2.6. Archaeological and palaeontological sites;
 - 2.7. Graves and burial grounds, including—
 - 2.7.1. Ancestral graves;
 - 2.7.2. Royal graves and graves of traditional leaders;
 - 2.7.3. Graves of victims of conflict;
 - 2.7.4. Graves of individuals designated by the Minister by notice in the Gazette;
 - 2.7.5. Historical graves and cemeteries; and
 - 2.7.6. Other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- 3. Sites of significance relating to the history of slavery in South Africa;
 - 3.1. Movable objects, including—

- Objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
 - 4.1. Objects to which oral traditions are attached or which are associated with living heritage;
 - 4.2. Ethnographic art and objects;
 - 4.3. Military objects;
 - 4.4. objects of decorative or fine art;
 - 4.5. Objects of scientific or technological interest; and
 - 4.6. books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).
- 5. Without limiting the generality of subsections (1) and (2), a place or object is to be considered part of the national estate if it has cultural significance or other special value because of—
 - 5.1. Its importance in the community, or pattern of South Africa's history;
 - 5.2. Its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
 - 5.3. Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
 - 5.4. Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
 - 5.5. Its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
 - 5.6. Its importance in demonstrating a high degree of creative or technical achievement at a particular period;
 - 5.7. Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
 - 5.8. Its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa; and

5.9. sites of significance relating to the history of slavery in South Africa"

METHOD

The method for Heritage assessment consists of several steps.

The first step forms part of the desktop assessment. Here we would consult the database that has been collated by Umlando. These database contain archaeological site locations and basic information from several provinces (information from Umlando surveys and some colleagues), most of the national and provincial monuments and battlefields in Southern Africa (http://www.vuvuzela.com/googleearth/monuments.html) and cemeteries in southern Africa (information supplied by the Genealogical Society of Southern Africa). We use 1st and 2nd edition 1:50 000 topographical and 1937 aerial photographs where available, to assist in general location and dating of buildings and/or graves. The database is in Google Earth format and thus used as a quick reference when undertaking desktop studies. Where required we would consult with a local data recording centre, however these tend to be fragmented between different institutions and areas and thus difficult to access at times. We also consult with an historical architect, palaeontologist, and an historian where necessary.

The survey results will define the significance of each recorded site, as well as a management plan.

All sites are grouped according to low, medium, and high significance for the purpose of this report. Sites of low significance have no diagnostic artefacts or features. Sites of medium significance have diagnostic artefacts or features and these sites tend to be sampled. Sampling includes the collection of artefacts for future analysis. All diagnostic pottery, such as rims, lips, and decorated sherds are sampled, while bone, stone, and shell are mostly noted. Sampling usually

occurs on most sites. Sites of high significance are excavated and/or extensively sampled. Those sites that are extensively sampled have high research potential, yet poor preservation of features.

DEFINING SIGNIFICANCE

Heritage sites vary according to significance and several different criteria relate to each type of site. However, there are several criteria that allow for a general significance rating of archaeological sites.

These criteria are:

1. State of preservation of:

- 1.1. Organic remains:
- 1.1.1. Faunal
- 1.1.2. Botanical
- 1.2. Rock art
- 1.3. Walling
- 1.4. Presence of a cultural deposit
- 1.5. Features:
- 1.5.1. Ash Features
- 1.5.2. Graves
- 1.5.3. Middens
- 1.5.4. Cattle byres
- 1.5.5. Bedding and ash complexes

2. Spatial arrangements:

- 2.1. Internal housing arrangements
- 2.2. Intra-site settlement patterns
- 2.3. Inter-site settlement patterns

3. Features of the site:

3.1. Are there any unusual, unique or rare artefacts or images at the site?

- 3.2. Is it a type site?
- 3.3. Does the site have a very good example of a specific time period, feature, or artefact?

4. Research:

- 4.1. Providing information on current research projects
- 4.2. Salvaging information for potential future research projects

5. Inter- and intra-site variability

- 5.1. Can this particular site yield information regarding intra-site variability, i.e. spatial relationships between various features and artefacts?
- 5.2. Can this particular site yield information about a community's social relationships within itself, or between other communities?

6. Archaeological Experience:

6.1. The personal experience and expertise of the CRM practitioner should not be ignored. Experience can indicate sites that have potentially significant aspects, but need to be tested prior to any conclusions.

7. Educational:

- 7.1. Does the site have the potential to be used as an educational instrument?
 - 7.2. Does the site have the potential to become a tourist attraction?
- 7.3. The educational value of a site can only be fully determined after initial test-pit excavations and/or full excavations.

8. Other Heritage Significance:

- 8.1. Palaeontological sites
- 8.2. Historical buildings
- 8.3. Battlefields and general Anglo-Zulu and Anglo-Boer sites
- 8.4. Graves and/or community cemeteries
- 8.5. Living Heritage Sites
- 8.6. Cultural Landscapes, that includes old trees, hills, mountains, rivers, etc related to cultural or historical experiences.

The more a site can fulfill the above criteria, the more significant it becomes. Test-pit excavations are used to test the full potential of an archaeological deposit. This occurs in Phase 2. These test-pit excavations may require further excavations if the site is of significance (Phase 3). Sites may also be mapped and/or have artefacts sampled as a form of mitigation. Sampling normally occurs when the artefacts may be good examples of their type, but are not in a primary archaeological context. Mapping records the spatial relationship between features and artefacts.

TABLE 1: SAHRA GRADINGS FOR HERITAGE SITES

SITE	FIELD	GRADE	RECOMMENDED
SIGNIFICANCE		GNADE	MITIGATION
High	National	Grade 1	Site conservation / Site
Significance	Significance	Orace i	development
High	Provincial	Grade 2	Site conservation / Site
Significance	Significance	014402	development
High Significance	Local Significance	Grade 3A – C	
High / Medium Significance	Generally Protected A	Grade 3A	Site conservation or mitigation prior to development / destruction
Medium Significance	Generally Protected B	Grade 3B	Site conservation or mitigation / test excavation / systematic sampling / monitoring prior to or during development / destruction
Low Significance	Generally Protected	Grade 3C	On-site sampling monitoring or no archaeological mitigation required prior to or during development / destruction

RESULTS

DESKTOP STUDY

The desktop study consisted of analysing various maps for evidence of prior habitation in the study area, as well as for previous archaeological surveys. There have been a few Phase 1 AIAs and/or HIAs near or passing through parts of the pipeline (Anderson 2013 a-c; Attwell 2006; Anderson 2102 a-c; Binneman, J. 2006a-b; Gess 2006; Van Ryneveld, K. 2007a-b, 2008; Webley 2007a-c, 2008). Only Webley (2008) had recorded one cemetery 150m near the line. No national monuments, battlefields, or historical cemeteries are known to occur in the pipeline footprint. However, Fort Peddie, the associated cemetery and the Cavalry Barracks occur 150m – 200m from the line. The line also passes near Emgwashini, a few historical farmhouses and two memorials.

The area also has historical importance in terms of the 1820 settlers and the Frontier Wars. Places such as Cuylerville Church played in important role to the Settlers, and several of the landowners in this area can claim direct descent from the original Settlers, e.g. the Clayton and Ferris families. Unfortunately the descendents of the Xhosa-speaking people to the north of the Fish River are not as well recorded and their lineages in relation to the time of the Settlers are "missing". The area has a strong living heritage, and oral history, in association with the cultural landscape that would need to be recorded for any high impact development. Parts of the pipeline route forms part of the Frontier Heritage Route. Fortunately, the water reticulation will not have a post-construction visible impact as it is subsurface.

The 1954 – 1968 1st edition 1:50 000 topographical maps indicate that there are 170 settlements, farmhouses and/or historical structures within 200m of the pipeline footprint. The location of these sites is given in Table 2, while Figure 4 shows their location.

TABLE 2: LOCATION OF DESKTOP HERITAGE SITES

NAME	LATITUDE	LONGITUDE	DESC
aru1	-33.651295391	26.670576271	
aru10	-33.506084846	26.976003323	huts
aru100	-32.909919634	27.041536605	
aru101	-32.908764824	27.041838669	
aru102	-32.907771381	27.041971025	
aru103	-32.907027635	27.041193027	
aru104	-32.905845840	27.040522064	
aru105	-32.903128819	27.039755147	
aru106	-32.902404155	27.040194553	buildings
aru107	-32.898719834	27.018704064	
aru108	-32.898311898	27.019471881	
aru109	-32.896823116	27.018216322	
aru11	-33.505329801	26.977246961	huts
aru110	-32.896585320	27.017445809	
aru111	-32.895440351	27.015419076	
aru112	-32.894835018	27.014520701	
aru113	-32.874491706	27.023709459	
aru114	-32.874630047	27.025015314	
aru115	-32.874271189	27.022751369	
aru116	-32.873294536	27.027532336	
aru117	-32.873464231	27.028061581	
aru118	-32.873361403	27.029038527	
aru119	-32.871388613	27.027413573	
aru12	-33.506240854	26.978050116	huts
aru120	-32.871686179	27.028599470	
aru121	-32.870890231	27.029169372	
aru122	-32.870171837	27.028656322	
aru123	-32.862318903	27.037765596	
aru124	-32.862384122	27.038545640	
aru125	-32.861350859	27.040001647	
aru126	-32.862007991	27.040550449	
aru127	-32.865040543	27.058750021	
aru128	-32.866136896	27.057913328	
aru128	-32.878016536	27.048854740	building
aru129	-32.886070748	27.045706915	
aru13	-33.505763950	26.981424686	huts
aru130	-32.890772906	27.042842426	
aru131	-32.892818030	27.040752047	
aru132	-32.895488066	27.039588928	
aru133	-32.896076133	27.039214986	
aru134	-32.896709090	27.038814769	
aru135	-32.853856922	27.044955474	
aru136	-32.834500252	27.014239321	buildings
aru137	-32.832656657	27.016123703	

NAME	LATITUDE	LONGITUDE	DESC
aru138	-32.820459828	27.006226095	
aru139	-32.806289387	27.023744471	
aru14	-33.435827840	27.072559539	2 huts
aru140	-32.805621406	27.024411995	
aru141	-32.805015195	27.024803860	
aru142	-32.804151077	27.025551341	
aru143	-32.804765124	27.026909858	
aru144	-32.771915893	27.053813903	building
aru145	-32.768558279	27.052150919	building
aru146	-32.811728488	27.067269480	
aru147	-32.809749692	27.067908087	
aru148	-32.810531842	27.066284694	
aru149	-32.792621697	27.065383722	
aru15	-33.434036750	27.074116922	2 huts
aru150	-32.756275321	27.075402579	
aru151	-32.756717454	27.076125844	
aru152	-32.757067426	27.077485409	
aru153	-32.753742085	27.088671237	
aru154	-32.754112732	27.088472722	
aru155	-32.745909867	27.097539551	
aru155	-32.740448852	27.097641475	
aru156	-32.756506155	27.075362201	Grave?
aru157	-32.812060024	27.069685576	Graves?
aru16	-33.432642860	27.072257453	huts and
			trough
aru17	-33.379125143	27.086979858	area of
			huts
aru18	-33.372531045	27.085840033	
aru19	-33.372687506	27.084133314	
aru2	-33.649998352	26.670051234	
aru20	-33.366513518	27.085365468	2 x h
aru21	-33.364323972	27.083750271	grave
aru22	-33.362115427	27.085423037	
aru23	-33.361088860	27.085620013	
aru24	-33.349733648	27.088433125	
aru25	-33.346780338	27.089808371	
aru26	-33.344604268	27.089407060	
aru27	-33.342356549	27.093766979	
aru28	-33.341913787	27.094327551	
aru29	-33.341396146	27.095152096	
aru3	-33.649256748	26.670273229	
aru30	-33.342026567	27.091797515	
aru31	-33.337502560	27.095318912	
aru32	-33.329641892	27.095183682	
aru33	-33.323560695	27.092080411	
aru34	-33.321643482	27.088949950	

NAME	LATITUDE	LONGITUDE	DESC
aru35	-33.321334908	27.085849811	
aru36	-33.319409890	27.080238052	
aru37	-33.301175571	27.079435235	
aru38	-33.297856169	27.080682633	Grave?
aru39	-33.275061578	27.085538627	
aru4	-33.603774412	26.676403948	building
aru40	-33.273090147	27.092750955	
aru41	-33.251415091	27.114209717	
aru42	-33.248676324	27.115794968	
aru43	-33.248528269	27.116862465	
aru44	-33.246819615	27.116136557	
aru45	-33.240498964	27.118135466	
aru46	-33.241663486	27.117639303	
aru47	-33.236492534	27.120720212	
aru48	-33.234801905	27.120633481	
aru49	-33.234936619	27.121987859	
aru5	-33.569746598	26.829312177	huts in
			area
aru50	-33.163291658	27.114157942	
aru51	-33.162361259	27.113432928	
aru52	-33.139287655	27.109236453	
aru53	-33.140138373	27.108500775	
aru54	-33.138540704	27.107144168	
aru55	-33.137034178	27.104872398	
aru56	-33.136859380	27.103429818	
aru57	-33.135796612	27.101291282	
aru58	-33.107068458	27.080995518	
aru59	-33.104151484	27.079787582	
aru6	-33.563193808	26.886229236	buildings
aru60	-33.102432565	27.079050134	
aru61	-33.101651881	27.078489991	
aru62	-33.027034667	27.078137853	
aru63	-33.026780063	27.075693734	
aru64	-33.024948131	27.074133045	
aru65	-33.024708039	27.075944665	
aru66	-33.024317874	27.077193048	1
aru67	-33.024328634	27.078328933	building
aru68	-33.022536330	27.086655808	buildings
aru69	-33.019356088	27.086661104	b,, i 1 d i
aru7	-33.512857584	26.962553697	buildings
aru70	-33.018032006	27.086773923 27.088119194	
aru71	-33.003466026		
aru72 aru73	-32.998455560	27.085376081	
aru/3	-32.996069930	27.084455120	

NAME	LATITUDE	LONGITUDE	DESC
			DESC
aru74	-32.995165041	27.084079268	
aru75	-32.993038129	27.082746759	
aru76	-32.992244813	27.082335451	
aru77	-32.991453735	27.082044789	
aru78	-32.981788266	27.082491720	H&B
aru79	-32.981708551	27.080143028	
aru8	-33.512048643	26.962129011	building
aru80	-32.981418725	27.079061186	
aru81	-32.980883803	27.079989048	
aru82	-32.980128987	27.078723338	
aru83	-32.979546281	27.077952452	
aru84	-32.979128530	27.077796743	
aru85	-32.977863435	27.077543384	
aru86	-32.977446556	27.077371659	
aru87	-32.967054157	27.075989219	
aru88	-32.966316858	27.074684244	
aru89	-32.941194679	27.066561402	
aru9	-33.506519599	26.971604420	huts
aru90	-32.940178391	27.066891920	
aru91	-32.940146148	27.065442270	
aru92	-32.939153699	27.066572552	
aru93	-32.938176288	27.065831831	
aru94	-32.917727602	27.060077621	
aru95	-32.919383327	27.056492948	Buildings
aru96	-32.910633094	27.040248801	Darraringo
aru97	-32.910331913	27.038876943	
aru98	-32.909807433	27.037674021	
aru99	-32.909396229	27.036470596	
Burnshill	-32.771248133	27.054695317	
location	32.771240133	27.004033317	
Cathcart	-33.177988781	27.121260518	
CEM	-33.094318000	27.082777000	
CEM	-33.094528751	27.083843744	
CEM 2	-33.122460000	27.105531000	
CEM 2	-33.122460000	27.105531000	
Charlgrove	-33.604897543	26.677908133	
Emqwasheni	-33.099093000	27.075857000	
end 3	-32.721948522	27.105934127	
Fort D'Acre	-33.489603939	27.114818942	somewhere
FORT D'ACTE	-33.469603939	27.114010942	here
FR_F2	-33.513812953	26.954827598	Vectis farm buildings and tree

Page 41 of 164

NAME	LATITUDE	LONGITUDE	DESC	NAME	LATITUDE	LONGITUDE	DESC
			boundary	FR-H39	-33.427708368	27.037770323	
FR-F1	-33.527281565	26.930129358	Ford's	FR-H4	-33.498790680	27.009140749	
			party farm	FR-H40	-33.429827465	27.038347407	
			house	FR-H41	-33.430412794	27.038232693	
FR-F5	-33.490754795	27.115484082	Fort	FR-H42	-33.433894897	27.039507343	
			D'Acre	FR-H43	-33.434500537	27.040325479	
FR-F8	-33.430668613	27.135594581	Buildings	FR-H44	-33.436705199	27.042368068	
FR-F9	-33.426277905	27.134967000	Tathana	FR-H45	-33.435934161	27.043702626	
			Shed	FR-H46	-33.447409860	27.049553016	2 x NW
FR-H1	-33.526084461	26.928269109		FR-H47	-33.447995650	27.048800548	
FR-H10	-33.488406826	27.105232446		FR-H48	-33.448548225	27.050871846	
FR-H11	-33.488881251	27.106001933		FR-H49	-33.397755108	27.072733388	
FR-H12	-33.489410671	27.105268188		FR-H5	-33.495303478	27.012531268	
FR-H13	-33.489671612	27.107541960	4 more to	FR-H50	-33.398786831	27.074047683	
			S and SE	FR-H51	-33.395349878	27.078177312	
FR-H14	-33.490694860	27.113392199		FR-H52	-33.394317008	27.078317990	
FR-H15	-33.491127480	27.113892283		FR-H53	-33.393344113	27.078761537	
FR-H16	-33.402476458	27.114102252		FR-H54	-33.392289090	27.078749657	
FR-H17	-33.393864683	27.072723063		FR-H55	-33.389558546	27.077122620	Cluster of
FR-H18	-33.394871460	27.071773300					5 huts
FR-H19	-33.394286764	27.073609949		FR-H56	-33.388824226	27.079361554	cluster of
FR-H2	-33.526059013	26.933537477		770 Y.F.7	22 207001052	07 07 007 04 40	5-6 huts
FR-H20	-33.395991016	27.073410844		FR-H57	-33.387201053	27.076972442	
FR-H21 FR-H22	-33.395395304	27.072587977		FR-H58 FR-H59	-33.384729445 -33.382464645	27.073522099	
FR-H23	-33.395733186 -33.395857986	27.071279640 27.069780144		FR-H6	-33.494429361	27.073510530 27.013648600	
FR-H24	-33.394855648	27.069545787		FR-H60	-33.381996151	27.074327379	
FR-H25	-33.394633646	27.068830247		FR-H61	-33.375866571	27.074327379	cluster of
FR-H26	-33.395047139	27.068151368		FK HOI	33.373000371	27.030237730	3 huts
FR-H27	-33.395822823	27.067102637		FR-H62	-33.376113918	27.056686028	5 11465
FR-H28	-33.395374840	27.066263049		FR-H63	-33.376152477	27.055105722	
FR-H29	-33.396100286	27.065308875		FR-H64	-33.375129111	27.051567835	
FR-H3	-33.517533860	26.939376954		FR-H65	-33.373791074	27.049869961	
FR-H30	-33.396662250	27.064523791		FR-H66	-33.372909263	27.048578642	
FR-H31	-33.397533280	27.065450057		FR-H67	-33.374545897	27.046765975	
FR-H32	-33.398024425	27.064641970		FR-H68	-33.374342198	27.043233300	
FR-H33	-33.397184367	27.063808023		FR-H69	-33.373763943	27.042350319	
FR-H34	-33.398935295	27.061144047		FR-H7	-33.503911317	27.063067105	
FR-H35	-33.400803401	27.059785432		FR-H70	-33.372289493	27.039112437	
FR-H36	-33.401434993	27.060975138		FR-H71	-33.371657186	27.036329542	
FR-H37	-33.406497416	27.030808230	2 x huts,	FR-H72	-33.369439171	27.034825221	
			and2x SW	FR-H73	-33.371634954	27.034720200	
			(200m)	FR-H74	-33.368976424	27.035768887	
FR-H38	-33.426802760	27.037041355		FR-H75	-33.368494182	27.034854102	

Page 42 of 164

NAME	LATITUDE	LONGITUDE	DESC
FR-H76	-33.370456581	27.032146332	2200
FR-H77	-33.356376179	27.023712805	
FR-H78	-33.355281006	27.024933493	
FR-H79	-33.354228350	27.024532349	
FR-H8	-33.505517074	27.065230145	
FR-H80	-33.353172542	27.024271526	
FR-H81	-33.354171137	27.021271020	
FR-H82	-33.353721638	27.021952265	
FR-H83	-33.351535754	27.023637233	
FR-H84	-33.350532676	27.023150781	
FR-H85	-33.348360744	27.020165451	
FR-H86	-33.347025328	27.020937593	
FR-H87	-33.346533196	27.020337333	
FR-H88	-33.345038125	27.019004480	2 x E, 3 x
110	55.545050125	27.019004400	N N
FR-H89	-33.343945874	27.016039267	14
FR-H9	-33.487933664	27.104216724	
Gibraltar	-33.483517182	27.135254495	
Rock	33.103317102	27.133231133	
Glledinning	-33.413126894	27.030678320	
Grant's	-33.660626888	26.680322988	
Valley	33.000020000	20.000022300	
grave	-33.662485277	26.684292282	
graves	-33.587048374	26.910881526	
Hopewell	-33.604090916	26.673421989	
mount	-33.507486525	26.982156815	
wellington	00,007,100020	20.302100010	
MSA	-33.128295404	27.129650641	
patoskop	-33.439412088	27.075262442	
PE-B2	-33.101548753	27.117062780	Ruins
PED01	-33.099730000	27.076364000	GR
PED01	-33.099730000	27.076364000	GR
PED02	-33.093739000	27.081891000	SENSMTMVE
PED02	-33.093739000	27.081891000	SENSMTMVE
PED03	-33.097331000	27.085960000	GR SETT
PED03	-33.097331000	27.085960000	GR SETT
PED04A	-33.097135000	27.086730000	GR?
PED04A	-33.097135000	27.086730000	GR?
PE-F1	-33.122586149	27.108153858	Bellevue A
			farm
			buildings
			1964
PE-F2	-33.130509497	27.134761453	
PE-FB3	-33.095573003	27.122425926	Watervloed
	33.33373003	_ , ,	

NAME	LATITUDE	LONGITUDE	DESC
			farm buildings 1964
PE-H1	-33.101769755	27.114880537	
PE-H10	-33.132431324	27.132048216	
PE-H11	-33.121249242	27.109217638	
PE-H2	-33.101640634	27.078351281	several huts east side of road
PE-H3	-33.094475519	27.082013047	
PE-H4	-33.092047474	27.088140086	
PE-H5	-33.140480083	27.127580961	
PE-H6	-33.129358416	27.132033139	
PE-H7	-33.131035473	27.130777689	
PE-H8	-33.131726180	27.129738310	
PE-H9	-33.132550316	27.133586300	
Seclusion site	-33.139169000	27.124323000	
settlers church	-33.585906163	26.905637669	
shooting range	-33.209398100	27.126467045	
Siesta	-33.577124374	26.745629432	
Sweet Home	-32.833022017	27.017460987	
Tools and Fossil	-33.122102380	27.118939005	
trees	-33.521129959	26.935359506	
Cuylerville church	-33.492515610	27.011785077	
Vergenoeg	-33.064680746	27.098188758	
watch tower	-33.193881837	27.124673106	

ASSUMPTIONS FOR SITE INTERPRETATIONS

Several assumptions are made during the survey, and these are based on my field experience and other anthropological information. These practical and theoretical assumptions allow for better site prediction and interpretations for fieldwork. The area continues with the settlement pattern I have noted elsewhere in the Eastern Cape (Anderson 2009a, 2009b, 2009c, 2010a, 2010b, 2011a-d). That is, there is little evidence of Late Iron Age (LIA) sites, even though it should exist – Early Iron Age sites do exist but in the larger river valleys (see Feeley 1986; Derricourt 1977). This may be partly because of the increase in mechanised ploughing activities that occurred in E. Cape and KwaZulu-Natal from the 1930's onwards. Most of the recorded sites date from the late 18th century onwards. There is also some evidence from the various surveys that there tends to be a continual occupation of the same plot of land over a length of time. Van Ryneveldt (2010, 2011) has noted similar trends I have observed Historical Period stone walled kraals still in use to this day. In this way, the houses are continually reused and fixed, and new ones built gradually as the families expand. A last suggestion for the lack of LIA settlements is that only a few areas used dry stone walling in the Eastern Cape, while the rest use mud bricks for houses and kraal foundations, and plants such as aloes for kraals. These would erode through time without leaving surface evidence. Human graves may also consist of holes in the ground that are covered with soil and then tree branches on the top. Other burial sites may have a small headstone and footstone associated with the grave. These types of features would not last long past 20 years. This method of burial, coupled with agricultural ploughing, would thus destroy LIA and HP settlements.

Lewis and Mrara (2010:375) state:

"During the 19th century the predominant form of rural settlement in Transkei was that of dispersed homesteads. The form of the homesteads tended to differ from tribe to tribe, while the homesteads of various tribal groups were separated

from each other by uninhabitated areas, or buffer zones. During the 19th century mission settlements were introduced to Transkei, some of which developed into towns.

In the 20th century, mainly as a result of government action, homesteads have been nucleated into rural settlements and villages and much of the land has been fenced. A few peri-urban and industrial villages also exist in Transkei. Over 95% of the population of Transkei in 1980 were still rural dwellers."

This would explain the clusters of settlements on various hills that are shown on the older topographical maps. Whether these clusters, or 'nucleated homesteads', were originally centred along kinship lines would need further research, but that is not the case for more recent villages.

The term settlement refers to a single-family household. These all follow a similar pattern in terms of layout:

- Row of 3 houses/huts some have a double row of houses
- A fourth house may occur to the side of the kraal.
- A large agricultural field often in the front of the kraal
- A small cattle byre (or kraal)
- Graves tend to be located near the byre

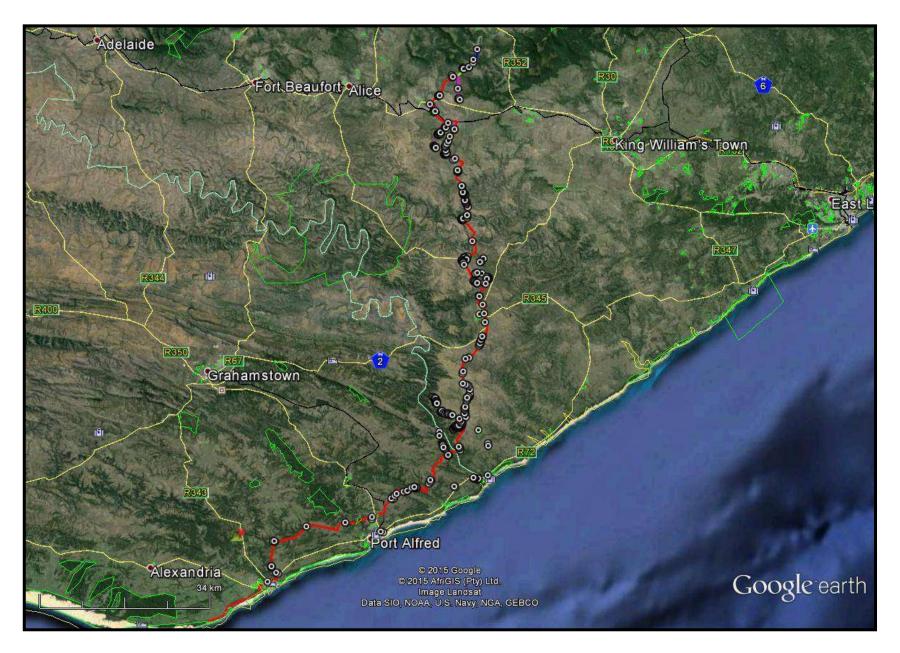
The position of the cattle byre varies. Some settlements have the byre (or kraal) in the agricultural field, but near the house, while others have it furthest away from the house. Graves tend to be associated with the cattle byre and are outside of the byre. The entrance to the byre also varies and this may be a spatial or temporal feature. This type of settlement pattern allows one to "read" a site with few visible features, and thus know where certain features should occur. The cemeteries and/or graves in rural areas should be treated the same as cemeteries in the urban areas. Urban cemeteries areas do not have servitudes though or over them, and this should be the case for rural areas. In the past, electricity and telephone lines have been allowed to go over graves and other

types of heritage sites. In some cases, the sites have been damaged during the construction phase, e.g. vehicles driving over graves, the stays being placed on sites, etc. In many cases, this was due to people not observing and respecting graves or ruined kraals, or not knowing that they were protected. It is for this reason that the 20m buffer zone, and the demarcation of sites, was introduced to protect these sites. Graves also have a religious and spiritual component, and this is even more important when ancestral spirits are taken into account. I have worked on several projects where a community has complained about ancestral spirits being 'disturbed' by servitude going over, or near, their graves. Only recent graves (mostly post-1960s) have formal headstones. Earlier graves tend to disappear within a few years of the burial, and are thus "invisible". Community cemeteries appear to be a recent phenomenon. It is for this reason that all settlements should be treated as having potential human remains.

Many of the settlements in the study area are not archaeological sites or even historical sites (in the strictest sense). They are however "sites in the making" and reflect the ways in which people have lived. For example, the changes from circular to rectangular cattle byres, and the move from family orientated settlements, or villages, to more public settlements. These sites are thus informative of the history of the area and should be included in a management plan. One should avoid damaging sites that are not necessarily protected by the legislation¹. The management plan below aims to preserve these sites, including the graves, from inadvertent damage. It also minimises the chances of a community's ancestral remains from being disturbed. Each region has its own way in which ancestors are revered, and it is thus not possible to set out definitive rules. Communities should be consulted at all times regarding the demarcation of ancestral lands and the location of servitudes near graves.

¹ The legislation does allow for the protection of built structures older than 60 years, and many of the settlements along the line can be viewed as built structures.

FIG. 4: LOCATION OF SITES FROM THE 1954 – 1968 TOPOGRAPHICAL MAPS



FIELD SURVEY

The field survey was undertaken in February 2015. Parts of the line had been previously surveyed (Anderson 2012 a-c). Most of the line follows the existing road reserve. In some areas it cross-farm lands, rivers and river valleys. The line links up to several reservoirs of which some have already been built. Table 3 summarises these sites while Figure 5 shows their location.

TABLE 3: LOCATION OF RECORDED HERITAGE SITES

NAME	LATITUDE	LONGITUDE	DESCRIPTION	Significance	Mitigation
AMA01	-32.724796	27.109380	Cemetery	High	25m buffer
AMA02	-32.728746990	27.102596993	Building	Low	25m buffer
AMA03	-32.807429004	27.066978011	Cemetery	High	25m buffer
AMA04	-32.813346963	27.073570965	Terracing	Low	None
AMA05	-32.807291960	27.022945024	Cemetery	High	25m buffer
AMA06	-32.772451	27.049472	Cemetery -south	High	Move line
AMA06A	-32.771770	27.049823	Cemetery -north	High	Move line
AMA07	-32.767837	27.051008	Church	High	25m buffer
AMA08	-32.771678008	27.055588011	Settlement	High	
AMA09	-33.610541	26.674299	Walling	Low	No impact
AMA010	-33.603966963	26.675737007	Building	N/A	No Impact
AMA011	-32.862070	27.042793	Cemetery	High	25m buffer
AMA012	-32.862886023	27.037792979	Cemetery	High	25m buffer
AMA013	-32.873933	27.026467	Grave?	High	25m buffer
AMA014	-32.874109978	27.024742020	Settlement/Grave	High	25m buffer
AMA015	-32.874365961	27.023149040	Settlement	Low	Sensitive area
AMA016	-32.871983992	27.030623015	Settlement	Low/High	Not affected, possible grave
AMA017	-32.976066023	27.076461967	Cemetery	High	25m buffer
AMA018	-33.022525990	27.086749999	Building	To be assessed	Not affected
AMA019	-32.741240	27.098003	Graves	High	25m buffer
CR4	-33.716840	26.592849	Buildings	Low	No damage
CR5	-33.705758	26.616048	Stone tools & fossils	High	On site monitoring and/or excavation
CR6	-33.706230037	26.620102962	Stone tools & fossils	High	On site monitoring and/or excavation
CR7	-33.704293985	26.623859983	Stone tools & fossils	High	On site monitoring and/or excavation
Cuylerville	-33.492754027	27.011630042	Building/Church	High	No direct impact; metal detector survey
Cuylerville	-33.493297091	27.013824508	Cemetery	High	No direct

Fairfax						impact
Grant's -33.660863 26.680409 Historical Medium No impact allowed Allow	ESA	-33.430770021	27.072151992	General artefacts	Low	
Crant's -33.660863 26.680409 Historical Medium No impact migrat migr	Fairfax		26.821530	Historical farm	Medium	Monitor
Grant's Valley Valley -33.660863 26.680409 Historical Building Building Building Medium allowed allowed allowed allowed allowed allowed some part and place and place and part and place and place and part and place and place and place and place and part and place and place and place and place and part and place and						during
Valley						
Fort Peddie -33.19787 27.125054 Cavalry barracks High No impact		-33.660863	26.680409		Medium	
Part	•					
Fort Peddie -33.193882 27.124673 Watch tower High No impact tower Fort Peddie -33.195514977 27.124129012 Cemetery High No impact		-33.197787	27.125054	Cavalry barracks	High	No impact
This		22 102002	25.124652	XX . 1 .	TT: 1	NT .
Fort Peddic -33.195514977 27.124129012 Cemetery High No impact		-33.193882	27.124673	Watch tower	High	No impact
Chiefs Msutu -33.297378989 27.080668006 Memorial High No impact		22 105514077	27 124120012	Comotomi	Uich	No impost
Chiefs Msutu and Njokweni Frontier -32.779261032 27.080668006 Memorial High No impact Frontier -32.779261032 27.039102986 Memorial High No impact Wars Memorial High No impact SCA01 -33.619913030 26.671457961 Stone tools Low None Vergenoeg -33.064680746 27.098188758 Building Low-medium On site monitoring and sampling Siesta -33.577124374 26.745629432 Building Low None Wellington -33.507486525 26.982156815 Building Low None Hopewell -33.604090916 26.673421989 Building Low None Rocklands -33.512049 26.942129 Building N/A Not affected Fords Party -33.504994 26.954014 Building N/A Not affected Patoskop -33.439412 27.075262 Building N/A Not affected Burns Hill -32.71248133 27.054695317 <th></th> <th>-33.173314777</th> <th>27.124129012</th> <th>Cemetery</th> <th>High</th> <th>No impact</th>		-33.173314777	27.124129012	Cemetery	High	No impact
Prontier -32.779261032 27.039102986 Memorial High No impact		-33 297378989	27 080668006	Memorial	High	No impact
Frontier -32.779261032 27.039102986 Memorial High No impact Wars Memorial		33.271310707	27.000000000	Wiemona	111911	110 impact
Nars Memoria SCA01 -33.619913030 26.671457961 Stone tools Low None None	•	-32,779261032	27.039102986	Memorial	High	No impact
SCA01		-			J	1
Vergenoeg	Memorial					
Siesta	SCA01	-33.619913030	26.671457961	Stone tools		None
Siesta	Vergenoeg	-33.064680746	27.098188758	Building	Low-medium	On site
Siesta						
Mount Wellington -33.507486525 26.982156815 Building Low None Hopewell -33.604090916 26.673421989 Building Low None Rocklands -33.512049 26.962129 Building N/A Not affected Fords Party -33.509821 26.941074 Building N/A Not affected Vectis -33.514094 26.954014 Building N/A Not affected Patoskop -33.439412 27.075262 Building N/A Not affected Burns Hill -32.771248133 27.054695317 Historical Medium Report all buildings Charlgrove -33.604897543 26.677908133 Building Medium-high Not affected Charlgrove -33.663095 26.683627 Cemetery High Keep line on opposite side of the road. Emqwasheni -33.099093000 27.075857000 Monument High Line remains on eastern side of road ARU01 -33.649998 26.67018 Farm labourer's house Low						
Wellington Hopewell						
Hopewell		-33.507486525	26.982156815	Building	Low	None
Rocklands -33.512049 26.962129 Building N/A Not affected Fords Party -33.509821 26.941074 Building N/A Not affected Vectis -33.514094 26.954014 Building N/A Not affected Patoskop -33.439412 27.075262 Building N/A Not affected Burns Hill -32.771248133 27.054695317 Historical buildings Medium Report all middens to ECO Cathcart -33.177988781 27.121260518 Building Medium-high Not affected Charlgrove -33.604897543 26.677908133 Building Low None McDougal -33.663095 26.683627 Cemetery High Keep line on opposite side of the road. Emqwasheni -33.099093000 27.075857000 Monument High Line remains on eastern side of road ARU01 -33.651283 26.671181 Farm labourer's house Low Sensitive for human graves ARU03 -33.649998 26.6700273 Farm labourer's house <t< th=""><th></th><th>22 (0.4000016</th><th>26 672 421 000</th><th>D '11'</th><th>T</th><th>N</th></t<>		22 (0.4000016	26 672 421 000	D '11'	T	N
Fords Party Vectis -33.509821 26.941074 Building N/A Not affected Vectis -33.514094 26.954014 Building N/A Not affected Patoskop -33.439412 27.075262 Building N/A Not affected Burns Hill -32.771248133 27.054695317 Historical & Medium Medium Report all middens to ECO Cathcart -33.177988781 27.121260518 Building Medium-high Not affected Charlgrove -33.604897543 26.677908133 Building Low None McDougal Cemetery -33.663095 26.683627 Cemetery High Keep line on opposite side of the road. Emqwasheni -33.099093000 27.075857000 Monument High Line remains on eastern side of road ARU01 -33.651283 26.671181 Farm labourer's house Low Sensitive for human graves ARU02 -33.649257 26.670273 Farm labourer's house Low Sensitive for human graves ARU05 -33.569747 26.82931 F	-					
Vectis -33.514094 26.954014 Building N/A Not affected Patoskop -33.439412 27.075262 Building N/A Not affected Burns Hill -32.771248133 27.054695317 Historical & building Medium Medium Medium Middens to ECO Cathcart -33.177988781 27.121260518 Building Medium-high Not affected Charlgrove -33.604897543 26.677908133 Building Low None McDougal -33.663095 26.683627 Cemetery High Keep line on opposite side of the road. Emqwasheni -33.099093000 27.075857000 Monument High Line remains on eastern side of road ARU01 -33.651283 26.671181 Farm labourer's house Low Sensitive for human graves ARU02 -33.649257 26.670273 Farm labourer's house Low Sensitive for human graves ARU05 -33.569747 26.82931 Farm labourer's house Low Sensitive for human graves ARU014 -33.435828 27.072560 Settlem						
Patoskop Burns Hill -33.439412 27.075262 Building N/A Not affected Burns Hill -32.771248133 27.054695317 Historical & buildings Medium Report all middens to ECO Cathcart -33.177988781 27.121260518 Building Medium-high Not affected Charlgrove -33.604897543 26.677908133 Building Low None McDougal -33.663095 26.683627 Cemetery High Keep line on opposite side of the road. Emqwasheni -33.099093000 27.075857000 Monument High Line remains on eastern side of road ARU01 -33.651283 26.671181 Farm labourer's Low Sensitive for human graves ARU02 -33.649998 26.670051 Farm labourer's Low Sensitive for human graves ARU03 -33.649257 26.670273 Farm labourer's Low Sensitive for human graves ARU05 -33.569747 26.82931 Farm labourer's house Low Sensitive for human graves ARU04 -33.435828 27.072560 Settlement <				e		
Burns Hill -32.771248133 27.054695317 Historical & Medium middens to ECO Cathcart -33.177988781 27.121260518 Building Medium-high Not affected Charlgrove -33.604897543 26.677908133 Building Low None McDougal -33.663095 26.683627 Cemetery High Keep line on opposite side of the road. Emqwasheni -33.099093000 27.075857000 Monument High Line remains on eastern side of road ARU01 -33.651283 26.671181 Farm labourer's Low Sensitive for house human graves ARU02 -33.649998 26.670051 Farm labourer's Low Sensitive for house human graves ARU03 -33.649257 26.670273 Farm labourer's Low Sensitive for house human graves ARU05 -33.569747 26.82931 Farm labourer's Low Sensitive for house human graves ARU014 -33.435828 27.072560 Settlement Low Sensitive for human graves						
Description						
Cathcart		32.771210133	27.03 1073317		Wicaram	
Cathcart -33.177988781 27.121260518 Building Medium-high Not affected Charlgrove -33.604897543 26.677908133 Building Low None McDougal -33.663095 26.683627 Cemetery High Keep line on opposite side of the road. Emqwasheni -33.099093000 27.075857000 Monument High Line remains on eastern side of road ARU01 -33.651283 26.671181 Farm labourer's house Low Sensitive for human graves ARU02 -33.649998 26.670051 Farm labourer's house Low Sensitive for human graves ARU03 -33.649257 26.670273 Farm labourer's house Low Sensitive for human graves ARU05 -33.569747 26.82931 Farm labourer's house Low Sensitive for human graves ARU014 -33.435828 27.072560 Settlement Low Sensitive for human graves				o unumgo		
Charlgrove McDougal -33.604897543 26.677908133 Building Low Opposite Side Of the road. None McDougal Cemetery -33.663095 26.683627 Cemetery High General High Opposite Side Of the road. Emqwasheni -33.099093000 27.075857000 Monument Monument High High High High High High Opposite Side Of the road. ARU01 -33.651283 26.671181 Farm labourer's Low house Sensitive for human graves ARU02 -33.649998 26.670051 Farm labourer's Low house Sensitive for human graves ARU03 -33.649257 26.670273 Farm labourer's Low house Sensitive for human graves ARU05 -33.569747 26.82931 Farm labourer's house Low Sensitive for human graves ARU014 -33.435828 27.072560 Settlement Low Sensitive for human graves	Cathcart	-33.177988781	27.121260518	Building	Medium-high	
Cemetery opposite side of the road. Emqwasheni -33.099093000 27.075857000 Monument High Line remains on eastern side of road ARU01 -33.651283 26.671181 Farm labourer's Low Sensitive for house human graves ARU02 -33.649998 26.670051 Farm labourer's Low Sensitive for house human graves ARU03 -33.649257 26.670273 Farm labourer's Low Sensitive for house human graves ARU05 -33.569747 26.82931 Farm labourer's Low Sensitive for house human graves ARU014 -33.435828 27.072560 Settlement Low Sensitive for human graves	Charlgrove	-33.604897543	26.677908133	Building	Low	None
Emqwasheni -33.099093000 27.075857000 Monument High Line remains on eastern side of road ARU01 -33.651283 26.671181 Farm labourer's Low Sensitive for house human graves ARU02 -33.649998 26.670051 Farm labourer's Low Sensitive for house human graves ARU03 -33.649257 26.670273 Farm labourer's Low Sensitive for house human graves ARU05 -33.569747 26.82931 Farm labourer's Low Sensitive for house human graves ARU014 -33.435828 27.072560 Settlement Low Sensitive for human graves	McDougal	-33.663095	26.683627	Cemetery	High	Keep line on
Emqwasheni-33.09909300027.075857000MonumentHighLine remains on eastern side of roadARU01-33.65128326.671181Farm labourer's Low houseSensitive for human gravesARU02-33.64999826.670051Farm labourer's Low houseSensitive for human gravesARU03-33.64925726.670273Farm labourer's Low human gravesSensitive for human gravesARU05-33.56974726.82931Farm labourer's Low Sensitive for houseSensitive for human gravesARU014-33.43582827.072560SettlementLow Sensitive for human graves	Cemetery					1 1
ARU01 -33.651283 26.671181 Farm labourer's Low Sensitive for house human graves ARU02 -33.649998 26.670051 Farm labourer's Low Sensitive for house human graves ARU03 -33.649257 26.670273 Farm labourer's Low Sensitive for house human graves ARU05 -33.569747 26.82931 Farm labourer's Low Sensitive for house human graves ARU014 -33.435828 27.072560 Settlement Low Sensitive for human graves						of the road.
ARU01 -33.651283 26.671181 Farm labourer's Low human graves ARU02 -33.649998 26.670051 Farm labourer's Low human graves ARU03 -33.649257 26.670273 Farm labourer's Low Sensitive for human graves ARU05 -33.569747 26.82931 Farm labourer's Low Sensitive for house human graves ARU04 -33.435828 27.072560 Settlement Low Sensitive for human graves	Emqwasheni	-33.099093000	27.075857000	Monument	High	
ARU01 -33.651283 26.671181 Farm labourer's Low human graves ARU02 -33.649998 26.670051 Farm labourer's Low Sensitive for house human graves ARU03 -33.649257 26.670273 Farm labourer's Low Sensitive for house human graves ARU05 -33.569747 26.82931 Farm labourer's Low Sensitive for house human graves ARU014 -33.435828 27.072560 Settlement Low Sensitive for human graves						
house human graves ARU02 -33.649998 26.670051 Farm labourer's Low human graves ARU03 -33.649257 26.670273 Farm labourer's Low Sensitive for house human graves ARU05 -33.569747 26.82931 Farm labourer's Low Sensitive for human graves ARU014 -33.435828 27.072560 Settlement Low Sensitive for human graves	A DITO1	22 (51292	26 671101	Г2	Τ.	
ARU02 -33.649998 26.670051 Farm labourer's Low house human graves ARU03 -33.649257 26.670273 Farm labourer's Low Sensitive for house human graves ARU05 -33.569747 26.82931 Farm labourer's Low Sensitive for house human graves ARU014 -33.435828 27.072560 Settlement Low Sensitive for human graves	ARUUI	-33.651283	26.6/1181		Low	
house human graves ARU03 -33.649257 26.670273 Farm labourer's Low Sensitive for house human graves ARU05 -33.569747 26.82931 Farm labourer's Low Sensitive for house human graves ARU014 -33.435828 27.072560 Settlement Low Sensitive for human graves	A DI 102	-33 649008	26.670051		Low	
ARU03 -33.649257 26.670273 Farm labourer's Low Sensitive for house human graves ARU05 -33.569747 26.82931 Farm labourer's Low Sensitive for house human graves ARU014 -33.435828 27.072560 Settlement Low Sensitive for human graves	ARUU2	-JJ.U 1 7770	20.070031		LUW	
house human graves ARU05 -33.569747 26.82931 Farm labourer's Low Sensitive for house human graves ARU014 -33.435828 27.072560 Settlement Low Sensitive for human graves	ARIJ03	-33 649257	26 670273		Low	
ARU05 -33.569747 26.82931 Farm labourer's Low Sensitive for house human graves ARU014 -33.435828 27.072560 Settlement Low Sensitive for human graves	111003	33.01/231	20.010213		2011	
house human graves ARU014 -33.435828 27.072560 Settlement Low Sensitive for human graves	ARU05	-33.569747	26.82931		Low	
ARU014 -33.435828 27.072560 Settlement Low Sensitive for human graves						
human graves	ARU014	-33.435828	27.072560		Low	
DDT Jabu -32.839809 27.014616 Cemetery High Not affected						human graves
	DDT Jabu	-32.839809	27.014616	Cemetery	High	Not affected

FIGURE 5a: LOCATION OF NORTHERN RECORDED SITES

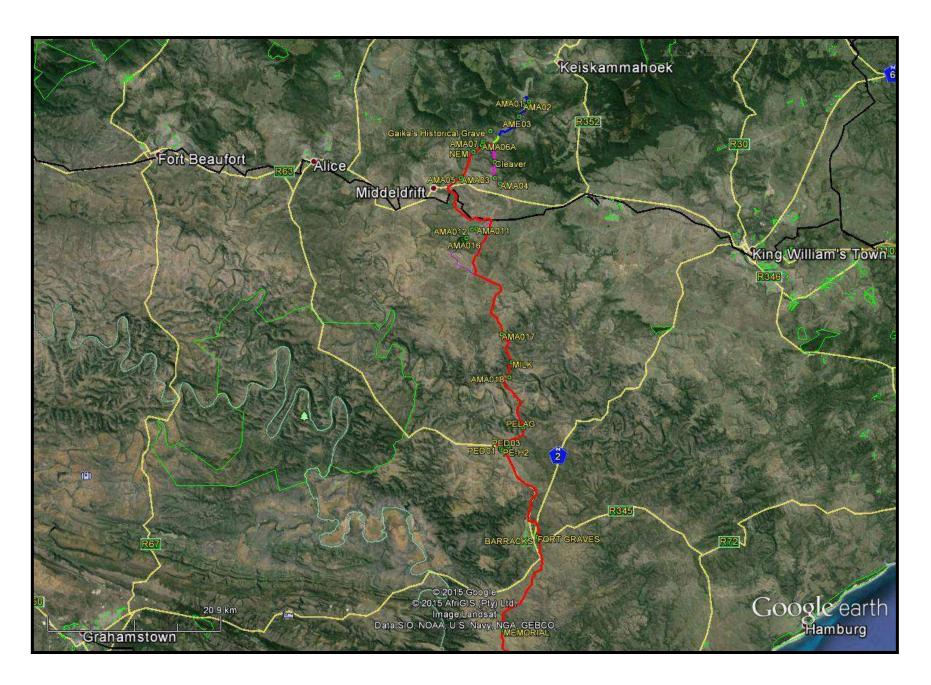


FIGURE 5b: LOCATION OF SOUTHERN RECORDED SITES



AMA01 is located on the top of a hill, near the edge of the valley (fig. 6). The site is a recent cemetery. The pipeline will occur ~100m from the cemetery and thus will not affect it.

Significance: The site is of high significance. **Mitigation:** No mitigation is currently available.

FIG. 6: CEMETERY AT AMA01



AMA02 is located on the western side of the gravel road. The main site consists of several ruins that occur on the 1954 map. The ruins probably relate to the Mbavaneni/Lower Wolf River Post office, general shop, and a workshop (fig. 7). More buildings occur ~180m to the north on the topographical map, but are not visible on the ground. The site probably dates back to the 19th century trade posts of the general area. The site will not be affected by the pipeline that is currently ~150m to the east.

Significance: The site is will need to be assessed by an architect historian if it will be affected by the pipeline. There are possible 19th century middens near the buildings, and these are of medium significance and may require sampling/excavation if affected.

Mitigation: No mitigation is currently required. There should be a 25m buffer if the line is moved.

SAHRA Rating: 3B for possible middens





AMA03 is a cemetery on the eastern side of the road (fig. 8). The cemetery occurs ~100m from the pipeline. The cemetery will thus not be affected by the current position of the pipeline footprint.

Significance: The site is of high significance

Mitigation: A minimum of a 25m buffer needs to maintained. The pipeline should not be moved from its current position.

FIG. 8: CEMETERY AT AMA03



AMA04 is located on the slopes of a hill leading to the British Ridge Reservoir. British Ridge itself is located ~1km to the southwest. The slopes have been surveyed by Kruger (2014) who noted that several features had already been destroyed by the construction of the reservoir. The features that I observed were anti-erosion walls and/or supports for terracing (on the lower slopes). In one area, the terracing leads down to a small historical dam, and thus some of the terracing may have been used to direct water flow to the dam. The terracing is low stone walling often with a single row of stones (fig.9). The pipeline will be missing the rest of the features as recorded by Kruger (fig. 10)

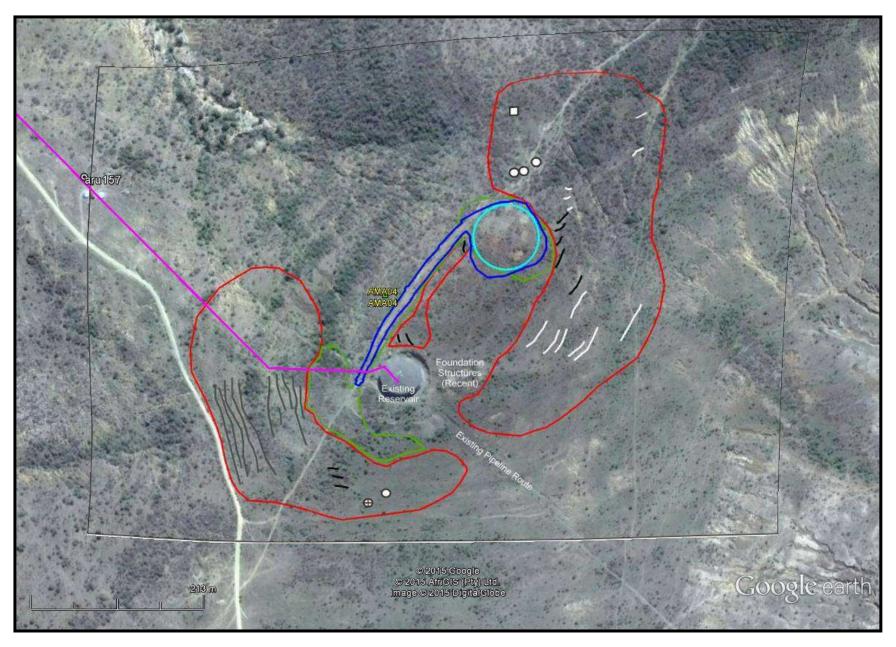
Significance: The site is of

Mitigation: No mitigation required as these have already been mapped.

FIG. 9: TERRACING AT AMA04



FIG. 10: LOCATION OF FEATURES RECORDED BY KRUGER (2014)



AMA05 is a cemetery to the west of the existing gravel road. The cemetery appears to be recent (fig, 11). The cemetery will not be affected by the current position of the pipeline that is on the eastern side of the road.

Significance: The site is of high significance.

Mitigation: If the pipeline position is changed, there needs to be at least a 25m buffer between the footprint and the edge of the cemetery.

FIG. 11: CEMETERY AT AMA05



AMA06 is a large cemetery dating over several decades. It is currently 140m x 80m in size. The graves vary from formal headstones and demarcated areas, to stone cairns (fig. 12). Several graves are next to the existing fence.

Significance: The site is of high significance.

Mitigation: The pipeline needs to be moved to the opposite side of the road. The graves besides the fence may have subsided and could be exposed by the pipeline.

FIG. 12: CEMETERY AT AMA0



Burns Hill was visited by James Backhouse in February 1839 (pp 229, 230, in http://www.sahistory.org.za/mission-stations-f), who recorded that:

"The Mission premises at Burns Hill consisted of the houses of the Missionary and his assistant, a neat, little, stone chapel, and two cottages belonging to native schoolmasters. Some [Xhosa] also resided near, and Sutu, the reigning widow of Gaika, the late principal chief of Western Caffraria, had her kraal or "Great Place" about a mile distant. ".

The Burns Hill section of the line is to link two lines to a new reservoir. Burnshill is a former mission station of the Glasgow Missionary Society established in 1831. It was named after the Reverend John Burns, minister of the Barony Church, Glasgow, one of the founders of the society. It was destroyed in 1851. The area is thus significant to the role of the Scottish Missionaries in the E. Cape. Very few buildings dating to the 20th century remain on Burnshill. However at the base of the hill is an old building that appears to be a church with associated blue gum trees to the south (fig. 14). The building is marked as a church on the 1938 aerial and 1949 (fig. 13) flight paths. The schools shown on the 1954 map do not exist, however the shop (fig. 15) still exists, as do buildings that are more recent. Many of the current main buildings at Burnshill predate 1949. According to Lt-Col John Scott (Editor 1969), there was a battle on the hill, and nearby, and several soldiers are buried at the base of an old Fir Tree.

The pipeline footprint remains on the side of the road reserve and thus in disturbed areas. However, subsurface middens may still occur and need to be assessed if exposed. It is of concern that a reservoir is being built on the top of the hill, and no HIA has been undertaken.

Significance: The site (or area) is of medium significance as it can yield information about early missionary churches in the area.

Mitigation: All middens (i.e. rubbish dumps) that are exposed during the course of construction phase need to be assessed for their historical value. The ECO can photograph the middens and send them via MMS to a qualified archaeologist. All OLD blue gum trees form part of the landscape heritage and may not be removed.

FIG. 13: BURNS HILL IN 1942

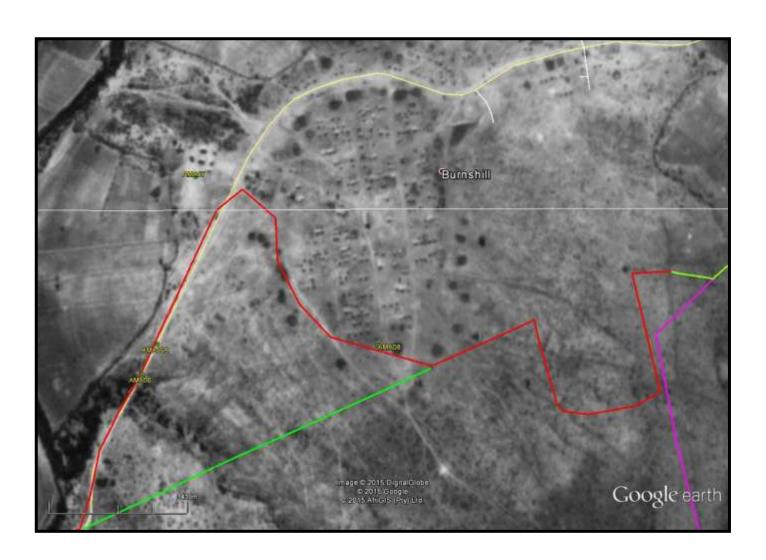


FIG. 14: BUILDING & TREES AT AMA07



FIG. 15: PRE-1950S BUILDING AT AMA07



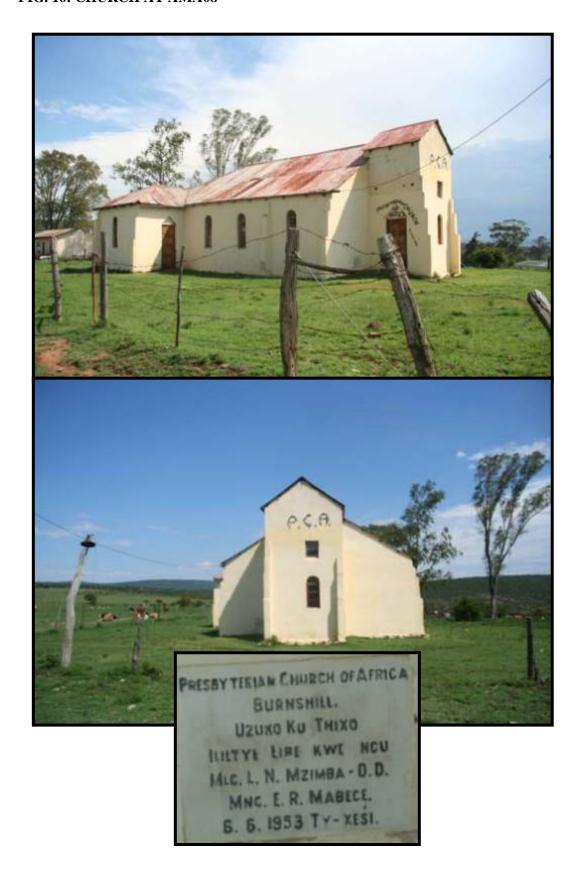
AMA08 is the Presbyterian Church of Africa (related to the Scottish Church) near the top of the hill of Burnshill (fig. 16). The building does not occur on the aerial photographs and flight plans of AMA07, nor on the 1956 topographical map². The building is dated to 1953 and is thus protected by heritage legislation. The building and the church grounds will not be affected by the pipeline.

Significance: The building will need to assessed by an architect historian if affected.

Mitigation: No mitigation currently required. Any middens near the church need to be reported.

² The topographical map may have used pre-1953 aerial photographs, or missed it.

FIG. 16: CHURCH AT AMA08



AMA09 is the driveway entrance wall to the farm Hopewell (fig. 17). The walling is a built structure that is older than 60 years and thus is protected by the heritage legislation.

The pipeline occurs on the opposite side of the road and will not affect the walling.

Significance: The site is of low significance. **Mitigation:** No mitigation is currently required.

FIG. 17: DRIVEWAY ENTRANCE WALLING AT AMA09



AMA010 is a small building near the road. It is currently used as a storage room. The building relates to ARU4 from the desktop study. On the opposite side of the road are various structures related to cattle holding pens and a few built structures that post-date 1970s and are not protected. The Farm Charlgrove occurs ~175m to the southeast and will not be affected.

The building at AMA010 is 25m south of gravel road, and is unlikely to be affected by the footprint.

Significance: The building is of unknown significance, and would need to be assessed by an architect historian if affected.

Mitigation: None currently required

FIG. 18: BUILDING AT AMA010



AMA011 is a cemetery in the Newtown village (fig. 19). The cemetery is on the eastern side of the hill and is ~80m x 100m in size. The centre point of the line is 28m to the north of the cemetery borders, and thus the footprint will be closer.

Significance: The site is of high significance

Mitigation: A 25m buffer from the edge of the cemetery and the edge of the pipeline footprint is required. The cemetery needs to be clearly demarcated before construction begins. The pipeline route in this section is an alternative route. Given the sensitivity of other sites along this route, the alternative should not be used.

FIG. 19: CEMETERY AT AMA011



AMA012 is a cemetery in the Newtown village (fig. 20). The cemetery is on the northern side of the hill above the Debe Dam and is ~80m x 100m in size. The centre point of the line is 18m to the north of the cemetery borders, and thus the footprint will be closer.

Significance: The site is of high significance

Mitigation: A 25m buffer from the edge of the cemetery and the edge of the pipeline footprint is required. The line will have to move further to the north. The cemetery needs to be clearly demarcated before construction begins. The pipeline route in this section is an alternative route. Given the sensitivity of other sites along this route, the alternative should not be used.

FIG. 20: CEMETERY AT AMA012



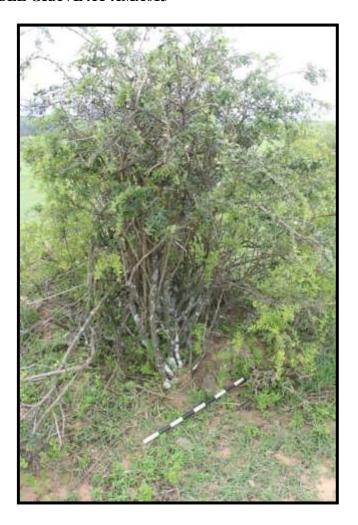
AMA013 is located to the southwest of Newtown on the top of the hill. This hill had several settlements in the desktop study. AMA013 is a low stone cairn that is covered with a bush (fig. 21). The cairn may (not) be a grave.

The pipeline will go through this site.

Significance: The site should be treated as a grave and is thus of high significance until proven otherwise.

Mitigation: There should be a 25m buffer between the edge of the grave and the edge of the pipeline footprint.

FIG. 21: POSSIBLE GRAVE AT AMA013



AMA014 is located ~160m southwest and downhill of AMA013. The site may be related to ARU13 and/or ARU14 from the desktop study. AMA014 consists of a slightly raised mound surrounded by a single oval row of stones (fig.22).

The pipeline centre point is ~20m from the grave.

Significance: The site is of high significance.

Mitigation: The pipeline needs to be moved if the alternative is chosen. There needs to be a 25m buffer between the edges of the pipeline footprint and the grave.

FIG. 22: GRAVE AT AMA014



AMA015 is located ~150m southwest and downhill of AMA014. The site may be related to ARU115 from the desktop study. AMA015 consists of four raised circular mounds that are the foundations of houses (fig.23). No graves were observed, but they should occur in the vicinity.

The pipeline centre point is ~40m from the grave.

Significance: The site is of low significance as no graves were observed.

Mitigation: No mitigation is required; however, there is a possibility of affecting subsurface features such as graves. I suggest the line is moved further away from the sites.

FIG. 23: HOUSE FOUNDATIONS AT AMA015



AMA016 is located near the top of the hill and ~400m northeast uphill of AMA013. The site consists of four raised circular mounds that are the foundations of houses (fig. 24). No graves were observed, but they should occur in the vicinity. A single stone was noted (at the GPS point) that could be a head/foot stone for a grave.

The pipeline centre point is ~175m from the site and will thus not affect it.

Significance: The site is of low significance as no graves were observed.

Mitigation: No mitigation is required; however, there is a possibility of affecting subsurface features such as graves.

FIG. 24: HOUSE FOUNDATIONS AT AMA016



AMA017 is located halfway up the hill and ~10m west of the road. The site consists of a large cemetery ~140m x 80m in size (fig. 25).

The pipeline appears to be on the opposite side of the road.

Significance: The site is of high significance.

Mitigation: The pipeline must remain on the opposite side of the road to

maintain the 25m buffer.

FIG. 25: CEMETERY AT AMA017

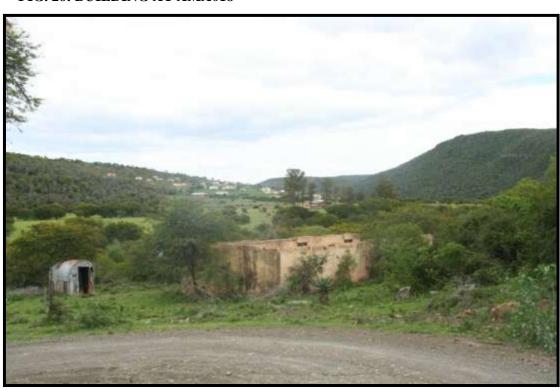


AMA18 is situated at the base of a hill on a flat area of ground just above the Keiskamma River. It is on the Farm Dank Den Governeur. The building exists as a General Dealer on the 1964 topographical map and is referred to as Riverbend. The building occurs on the 1949 aerial photograph as well. The roof was on the building up to 2014 (according to the Google Earth time imagery). The shop is probably one of the original 19th century General Dealer shops and was later converted to a house (fig. 26). The walling is well preserved. The pipeline will occur ~60m east of the building and thus not affect it.

Significance: The site is of medium significance in terms of the potential 19th century middens that would occur around the building. The structure itself would need to be assessed by an architect historian if affected. A 25m buffer from the building should be placed during construction phase.

Mitigation: No mitigation is currently required.

FIG. 26: BUILDING AT AMA018



AMA019

AMA019 is located \sim 95m from the road, and could be associated with the site ARU0155. The site consists of 2 – 3 graves next to a prominent tree. The area has a fence around it (fig. 27).

The pipeline occurs ~90m to the west of the graves. ARU155 occurs 30m east of the pipeline.

Significance: The site is of high significance.

Mitigation: No mitigation is required, but a 25m buffer should be kept form the graves. A 50m sensitivity buffer should be placed around ARU155 for possible human graves.

SAHRA Rating: 3A

FIG. 27: GRAVES AT AMA019



CR04

CR04 is located behind the first dune cordon on a grassy plain with small hills. The site consists of old labourer's houses and is probably related to CDW-H16 of the 1964 topographical map. There are two rectangular brick houses with a circular bricked water container. No other features were visible (fig. 28).

The pipeline will occur ~6m behind the house.

Significance: The site is of low significance as the tools are few in number and a secondary context.

Mitigation: No further mitigation is required.

SAHRA Rating: 3C

CR05

CR05 is some distance from the current pipeline position. A proposed alternative route passes near CR05. The site consists of an area exposed by presumed sand borrow pit 90m x 15m in size. This cutting would also be a good example of the types of artefacts one could expect to find in the general area. The sand has been exposed and removed while the artefacts occur on a hardened clay-like formation. Figure 29 shows the upper half of the site.

The site consists of a very dense concentration of Middle and Late Stone Age stone tools and palaeontological remains. Some of the faunal remains are not palaeontological, but may be associated with the archaeological material. The stone tools are made on silcrete, CCS, dolerite quartzite and quartz.

FIG. 28: STONE CIRCLES AT CR03

FIG. 29: GENERAL VIEW OF CR05

A brief site analyses observed the following tools:

- 1. Middle Stone Age:
 - a. Irregular cores
 - b. Unifacial points
 - c. General flakes
 - d. Utilised flakes
- 2. Late Stone Age:
 - a. Irregular cores
 - b. Bipolar cores
 - c. General flakes
 - d. Utilised flakes
 - e. Faunal remains

Figure 30 shows the various tools and palaeontological remains. This site is a good example of what can be expected in this area, and I would assume the

entire section behind the first dune cordon. The stone tools are well preserved and not sand blasted.

Significance: The site is of medium significance as the tools are varied, well preserved and associated with faunal remains. The Palaeontological Impact Assessment will rate the site significance.

Mitigation: The entire section of this line, from the Boknes River to the R72 at Kenton-on-Sea will need to be monitored during construction by a qualified archaeologist, and probably a palaeontologist as well. The stone tools will need to be sampled and areas with possible archaeological deposit may need to be excavated.

SAHRA Rating: 3A

CR06

CR06 is located in the middle of the grasslands behind the first dune cordon. The site is only visible in the track. The site consists of a scatter of stone tools for 130m (fig. 31). The stones are general flakes on quartzite. There is shell in the track, but these are *Achatina spp.* and are not archaeological. The site probably has shell middens associated with it, and extends into the dense vegetation. This site is an example of the extent of stone tools recorded at CR05 a CR07.

Significance: The site is of low-medium significance.

Mitigation: The entire section of this line, from the Boknes River to the R72 at Kenton-on-Sea will need to be monitored during construction. The stone tools will need to be sampled and areas with possible archaeological deposit may need to be excavated.

SAHRA Rating: 3B

FIG. 30: ARCHAEOLOGICAL AND PALAEONTOLOGICAL FINDS AT CR05



17/04/2015

FIG. 31: STONE TOOLS AT CR06

ndlambe pipeline (2) Umlando 17/04/2015



CR07

CR07 is located in the middle of the grasslands behind the first dune cordon. The site is a replica, or extension of, CRO6. The stones are general flakes on quartzite. There is shell in the track, but these are *Achatina spp.* and are not archaeological. The site probably has shell middens associated with it, and extends into the dense vegetation. This site is an example of the extent of stone tools recorded at CR05 and CR06.

Significance: The site is of low-medium significance.

Mitigation: The entire section of this line, from the Boknes River to the R72 at Kenton-on-Sea will need to be monitored during construction. The stone tools will need to be sampled and areas with possible archaeological deposit may need to be excavated.

SAHRA Rating: 3B

CUYLERVILLE CHURCH AND CEMETERY

The Cuylerville Church, the cemetery and surrounding land has its colonial roots that date back to the first 1820s Settlers. The area forms a central part to the history of Port Alfred, and the 6th and 7th Frontier Wars (1846 and 1851) (see Nash 1982; for summary see http://www.sahistory.org.za/topic/conquest-eastern-cape-1779-1878). The church buildings dates to 1825 and it has been used as a school, church and place of refuge during the Frontier Wars. There are two buildings on the property (fig. 32), while the cemetery is 200m to the west.

The 6th Frontier War of 1846 consisted of a battle around the church. During this battle, the Settlers took shelter in the church while those directly involved in the battle were probably in defensive structures around the then school. To the east of the church is a small rock outcrop that extends to the road. There are several small stone walled features on this outcrop (fig. 33). These features probably relate to defensive structures used during the two Frontier Wars. These are unrecorded features and not mentioned on the National Monuments Council plaque.

The battlefield, for the two Frontier Wars, has not been precisely mapped. These types of battles tended to have "running" battles in addition to the defensive positions. Any area within 1km of a battlefield should thus be considered as part of the battlefield. Recent surveys³ by Umlando at the Battle of Vaalkrans, KwaZulu-Natal, extended the battlefield by 6km to the south. Approximately 80 artefacts were recovered from this metal detector survey in an area of 30m x 7km. This extension occurred even after consulting with maps of the battlefield and historical experts. The battlefield in the Cuylerville area will need to be mitigated.

Significance: The site is of high significance for the following reasons:

ndlambe pipeline (2) Umlando 17/04/2015

³ This report is currently not available for citation or public review

- 1. Declared National Monument
- 2. Battlefield
- 3. Living heritages several descendants of the original settlers still live in the area and "claim" the history.
- 4. Cultural landscape as this is one of the focal points from the Fish River, and due to the Living Heritage
- 5. Historical site along a tourism route
- 6. The plaques associated with cemetery and church has social historical significance in terms of the terminologies used in their descriptions.

Mitigation: The pipeline will not have a visual impact on the area, as it is subsurface. The only visual impact would be during construction. The pipeline also follows the existing road and thus any impact will be negligible. The buildings and cemetery are not directly affected by the pipeline. The pipeline will occur 80m - 90m to the east of the buildings. The pipeline will however be going through a battlefield, and be very close to the rocky outcrop with stone walled features. The area on the eastern side of the road does not have any features or outcrops, and I suggest the pipeline is moved to the eastern side of the road (fig. 33).

Mitigation should be in the form of a metal detector survey along the impact area of the pipeline. The survey would begin ~330m south of the church, and extend to the Shaw Park Road. The Xhosa-speaking people would have taken this general direction from the Fish River. This impact area would include the trench and the spill piles from trenching. The aim of a metal detector survey would be to collect and map any potential battlefield artefacts before they are displaced by construction activity. The artefacts ideally should be curated by a local museum such as in Port Alfred that deals specifically with the area. The western side of the road should be declared "no-go" area for the duration of the construction. The survey should occur up to the top of the hill and perhaps further depending on the quantity and quality of finds.

SAHRA Rating: 1 (for buildings) and 3A (for surrounds)

FIG. 31: BUILDINGS AT CUYLERVILLE CHURCH

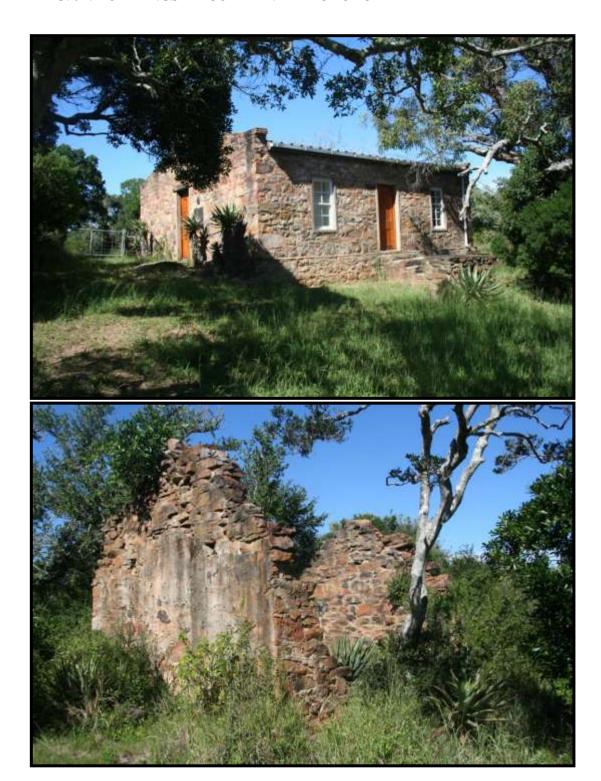


FIG. 32: STONE WALLED FEATURES AT CUYLERVILLE CHURCH



FIG. 33: PROPOSED RE-ALIGNED ROUTE (IN RED)



GENERAL STONE TOOLS

Most of the route, especially the area east and north of the Fish River has an almost continual stone tool horizon. The stone tools are open scatters and often disturbed and in a secondary context. They do not form sites rather general occurrences of tools. At times they are isolated artefacts otherwise they may be a small group of tools exposed by a cutting, or a scatter of tools at the base of a hill. The stone tools along the route date to the Early Stone Age, Middle Stone Age and Late Stone Age. Three areas were recorded for general purposes during the survey (fig. 34): ESA, Cleaver, SCA01 (see Table 3 for locations).

Significance: These scatter are of low significance and do not constitute a site *per se*.

Mitigation: No further mitigation is required.

SAHRA Rating: 3C

FIG. 34: GENERAL STONE TOOLS ALONG THE ROOT



FORT PEDDIE

"Fort Peddie was erected by the British military during the frontier war of 1834-35 for the protection of amaMfengu refugees evicted from Gcalekaland. It was named after Lt-Col John Peddie, Officer Commanding the 72nd Highlanders. In 1837 the mission of St James was established on a nearby site by the South African Missionary Society. Originally designed as an earth redoubt, the fort was built on the plan of an eight-pointed star with walls broad enough to allow for the movement of a 6-pounder cannon on the top. Because of its critical position in the defence of the Albany district, over the next few years it underwent a series of major improvements.

Its earthworks were gradually replaced by dressed stone walls with loopholed opening, and its square watch-tower, built in 1841, housed a cannon on its roof and, in an emergency, could be used as a fortified bailey. The fort came under fire in 1837, and again on 28 May 1846, when it was besieged by 9,000 amaXhosa tribesmen. On both occasions it proved equal to its task. When the Imperial troops were withdrawn in 1862, the property was given over to the Anglican Church.

By 1853 the name of the post had been abridged to Peddie and it had become the principal administrative centre for the newly-established division of Peddie. The 1875 census indicated that the village had a population of 299. By 1904 this number had risen to 473" (http://www.sahistory.org.za/places/peddie)

"The star-shaped fort initially had earth walls with trenches outside. Buildings were of stone. The commissariat store was located inside the fort, while the infantry barracks and stables were outside. Other buildings included the north and south officers' quarters and garden, Cape Mounted Rifles barracks, engineers' quarters, magazine and hospital. Over time, the earthworks were replaced by stone walls with loopholes. Several six-pounders were mounted in the walls.

The square, two storey stone Martello tower was built outside the main walls of the fort in 1841. A gun was mounted on the roof. A removable ladder was used to enter the tower via a door three metres up.

On July 28, 1836 the British Government renounced its claim to the province of Queen Adelaide and ordered the withdrawal of all troops in the area, retaining only King William's Town and Fort Cox. Although the British subsequently withdrew from the Province of Queen Adelaide, Fort Peddie was retained to protect the Mfengu. Treaties with the chiefs were signed in December 1836.

Fort Peddie was attacked by the Xhosa in 1837. In February 1838, an attack on Fort Peddie, with assistance from mutineers, was avoided through the arrest of the ringleaders. Theophilus Shepstone was the resident agent at Peddie from 1839 to 1846. In December 1844, the new governor. Sir Peregrine Maitland met with some of the Xhosa chiefs at Fort Peddie as part of familiarising himself with the frontier situation. The Peddie Line linking Fort Selwyn in Grahamstown and Fort Peddie comprised 30 metre high, stone communications towers located at Governor's Kop, Fraser's Camp and Piet Appel's Tower. The survey to establish suitable points on which to erect the stations was done by Henry Hall, an officer of the Royal Engineers. When war broke out in 1846, all the towers on this line had been completed but had not yet been provided with semaphore masts. All were destroyed within weeks of the start of the war.

After the April 1846 retreat from Burns Hill, Post Victoria was abandoned and part of the force there move to Fort Peddie. The next day, Chief Pato's forces attacked the Mfengu settlement at the Beka mission station near Fort Peddie. After a long delay on the part of Lieutenant Colonel Martin Lindsay of the 91st Regiment, who was in command at Fort Peddie, two hundred soldiers with two field guns marched to support the Mfengues. However, after firing a few shells, Colonel Richardson of the 7th Dragoon Guards ordered the troops to retire to Fort Peddie along with the Mfengu.

On 8th May, 1846, a party of 235 troops with wagons set off from Fort Peddie toward Albany. As they made their way through the dense bush to Trompetter's Drift on the Great Fish River, they were ambushed by the Xhosa and arrived at the river with difficulty.

Two weeks later a party of 43 wagons travelled from Grahamstown to provide provisions for Fort Peddie. After crossing the Great Fish at Trompetter's Drift, they too were attacked as they moved through the thick bush. The troops were completely outnumbered by the Xhosa and retreated to the fort at Trompetter's Drift. Captain Campbell, in command of the escort, was arrested and tried for abandoning the wagons.

On 28th May, 1846, the 8,000 strong force of chiefs Pato, Umhala, Seyolo and Stockwe made an unsuccessful attack on Fort Peddie, though taking 4,000 head of cattle, as well as overrunning and pillaging the store. Most of the fighting had been done by the Mfengu who were left outside the walls. Once again, if they had attacked by night they would probably have been successful. A relief force under Colonel Somerset was attacked and repulsed in a cavalry charge.

In 1847, the new governor, Sir Henry Pottinger, based himself at Fort Peddie in order to appraise the situation. In March 1848, Peddie was proclaimed a district. By 1853

the name of the post had been abridged to Peddie and it had become the principal administrative centre for the division of Peddie. When British troops were withdrawn in 1862, the property was given to the Anglican Church"

Captain Bulgar in his Extracts from My South Africa Diary describes visiting Fort Peddie in 1862:

"Peddle affords accommodation for about a troop of cavalry, and a company of infantry, in separate barracks, both of which are good and substantial, possessing high walls pierced with loop-holes. There is also a small mud-fort, containing a magazine, as well as Commissariat and other stores: it mounts two old guns, but neither they, nor the platforms on which they rest, are in a serviceable condition at present There are a few detached cottages, occupied by staff sergeants and Royal Engineers, an excellent stone hospital, and, about six hundred yards distant from the infantry barracks, a square, stone tower, in which, there is a second magazine and room for about a dozen men. The infantry officers' quarters are also detached, but those of the cavalry are inside the walls of the barracks allotted to that portion of the garrison. The latter are new and good, but former. on the contrary, are very old and much dilapidated." (http://www.mbendi.com/attraction/fort-peddie-108259)

The Watch Tower was listed by the Commission for the Preservation of Natural and Historical Monuments, Relics and Antiques as Monument No 42 in 1936. Much of the Fort (fig. 35) and Cemetery (fig. 36) is in a poor condition. The vegetation is overgrown, signboards have been removed and/or broken and people have been climbing into the Fort itself. The Cavalry Barracks (fig. 37) is in a good condition and still in use as a museum.

The pipeline will pass the eastern side of the Fort and cemetery by ~130m (fig. 38). The pipeline is passing a potential battlefield. While no features are present, there will be subsurface artefacts relating to the battle. The pipeline footprint will disturb these artefacts, as it will move the position of various artefacts, which can in turn give more information on the battle itself. The impact of the pipeline will not be high if mitigation is undertaken.

Significance: The site is of high significance and all three are National **Monuments:** The pipeline footprint will need to be surveyed with a metal

ndhambe pipeline (2) Umbando 17/04/2015

detector before construction phase by a qualified archaeologist. A permit for the survey will be required. Not all artefacts will be adequately recorded.

Mitigation: SAHRA Rating: 1

FIG. 35: WATCH TOWER AT FORT PEDDIE

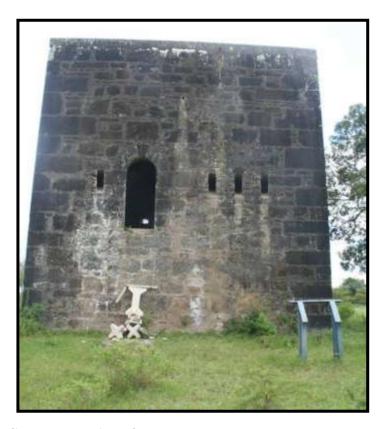


FIG. 36: CEMETERY AT FORT PEDDIE



FIG. 37: CAVALRY BARRACKS AT FORT PEDDIE

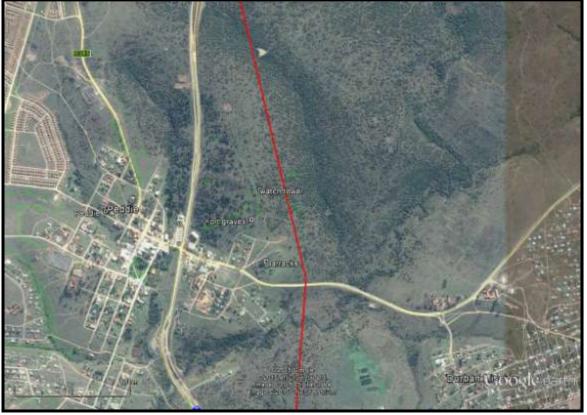








FIG. 38: CURRENT PIPELINE ROUTE



CHIEFS MSUTU & NJOKWENI MEMORIAL

The site is a memorial for local conflict in the 1950s and 1960s commonly referred to as 'The Trust Wars' (fig. 39). While the initial conflict was over cattle/sheep dipping, soil conservation and rehabilitation, it led to land dispossession by local communities. The local communities were divided between accepting, what was referred to as, 'betterment". Chiefs Msutu and Njokweni opted for "betterment' against the wishes of their fathers and were subsequently murdered as collaborators.

"The monument honours the rights of people to differ - and stand for tolerance and reconciliation" (monument test).

The settlement ARU38 occurs in the area of the memorial.

The pipeline currently occurs on the opposite side of the road.

Significance: The site is of high significance

Mitigation: The pipeline must remain on the opposite side of the road.

SAHRA Rating: 2

FIG. 39: CHIEFS MSUTU & NJOKWENI MEMORIAL



FRONTIER MEMORIAL

This memorial is placed on a small island at a Y-intersection (fig. 40). The memorial is for British soldiers who died at the Fort Cox, Fort White, Burns Hill, Middle Drift, and Debe Nek. The soldiers are not buried here. The memorial was erected in 1934 for those who died in the general vicinity.

The pipeline will occur on the eastern side of the road.

Significance: The site is of high significance as it is a memorial and it is older than 60 years

Mitigation: The memorial may not be affected by the pipeline. The memorial should have a 5m buffer placed around it during construction.

SAHRA Rating: 2

FIG. 40: MEMORIAL NEAR FORT COX



VERGENOEG

Vergenoeg is located north of Peddie and was one of the first colonial farms

in the area (Lot 12) – SG diagrams not available online. The farm occurs on

the 1949 aerial maps. The adjacent farm Guanga 10 was surveyed in 1853

and Shorncliff 18 in 1883. Since the farms were allotted before they were,

surveyed one can assume Vergenoeg dates to before or around the 1850s -

a more accurate deeds office search will be required to get an exact date.

The farm is currently in ruin with a gravel road (and thus pipeline) ~30m in

front of it (fig. 41). The 1998 topographical map indicates the farm as an

existing building, while the 2003 aerial photograph shows it has been

demolished. No family cemetery was observed. The main building is ~20m x

16m in size, with at least three outer buildings. The outer buildings have been

destroyed. 20th century artefacts were noted on the surface.

The pipeline footprint will occur 20m – 30m form the front of the house.

Significance: The site is of low-medium significance as it may yield 19th

century middens.

Mitigation: A distance of 200m, or 100m each side of the ruin, should be

monitored during construction for possible 19th century middens and

artefacts. A metal detector survey would assist in the monitoring.

SAHRA Rating: 3B

FIG. 41: BUILDINGS AT VERGENOEG







SIESTA

Siesta is an abandoned farmhouse ~95m from the gravel road. The house is partly in ruin (fig. 42). The farm building occurs on the 1942 aerial photographs and probably dates to the 19th century. The land Walsingham was originally granted to a Captain H. Crause and surveyed in 1826 (fig. 43). Siesta is on an area designated for grazing. The existing gravel road runs along the same route as the original road.

The pipeline occurs ~100m to the southeast of the farm buildings and will thus not affect the site.

Significance: The buildings would need to be assessed to determine their

significance

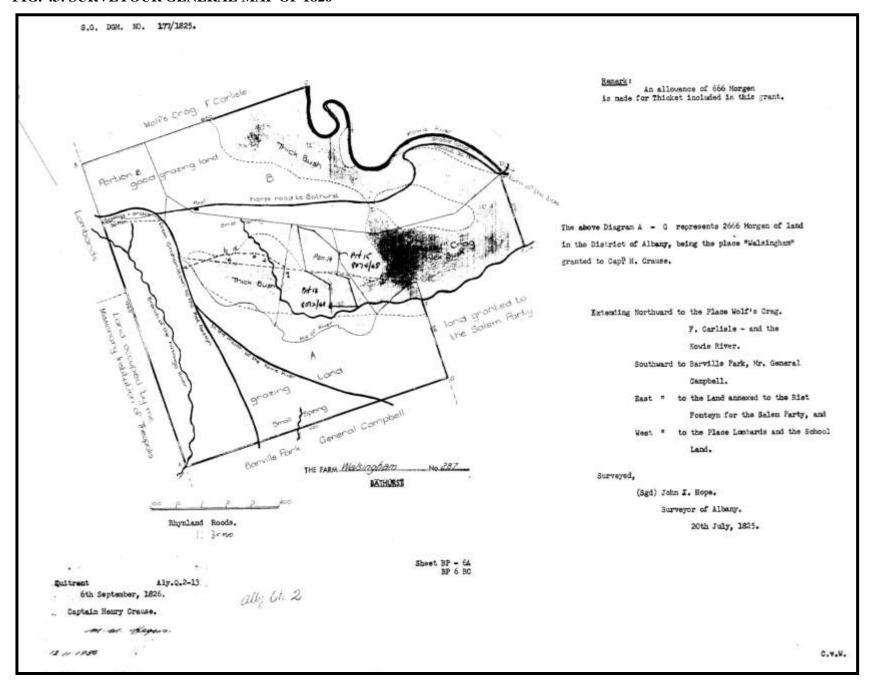
Mitigation: No mitigation is required.

SAHRA Rating: 3B

FIG.42: FARM BUILDING AT SIESTA



FIG. 43: SURVEYOUR GENERAL MAP OF 1826



<u>ndlambe pipeline (2) Umlando 17/04/2015</u>

FAIRFAX

Fairfax appears to be the original farmhouse, or at least a 19th century farmhouse from the Farm Fairfax (fig. 44). There have been several walls added onto the farm over time. The farm was originally surveyed in 1825 (fig. 45). By 1942, there was only one farmhouse on the farm (fig. 46). The buildings and related walling is thus protected by the heritage legislation. There will be numerous historical middens throughout the area surrounding the various buildings, and some of these may date to the 1820s. Any area within 50m of the buildings will be sensitive for middens.

I spoke to Mr Cockcroft, the current landowner, who informed me of a few farm labourers' graves to the south and southeast of the farm buildings.

There is an area of sand dunes ~350m southwest of the house. No artefacts were noted in the open areas, but they could occur below the surface. These sites would be deflation hollows with Stone Age shell middens.

The current line occurs just behind the sheds, and it will thus affect older structures.

Significance: The site is of high significance, as it appears to be the original farmhouse, although an exact date is still required.

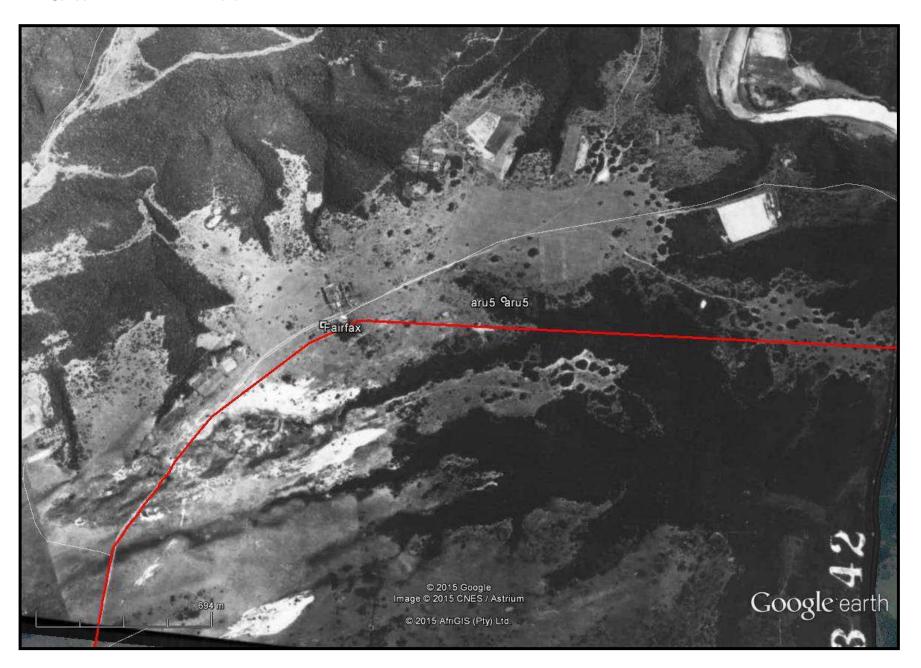
Mitigation: The edge of the pipeline footprint needs to be at least 25m from any existing built structure. The final route will need to be verified by an HIA practitioner as the current route is too close to the house and goes through older structures. Areas within 100m radius of the house will require monitoring during construction phase. This would be to sample and/or excavate any historical middens that might be exposed. The sand dunes need to be monitored during the construction phase. This would be to sample and/or excavate possible shell middens.

SAHRA Rating: 3A

FIG.44: FAIRFAX FARM

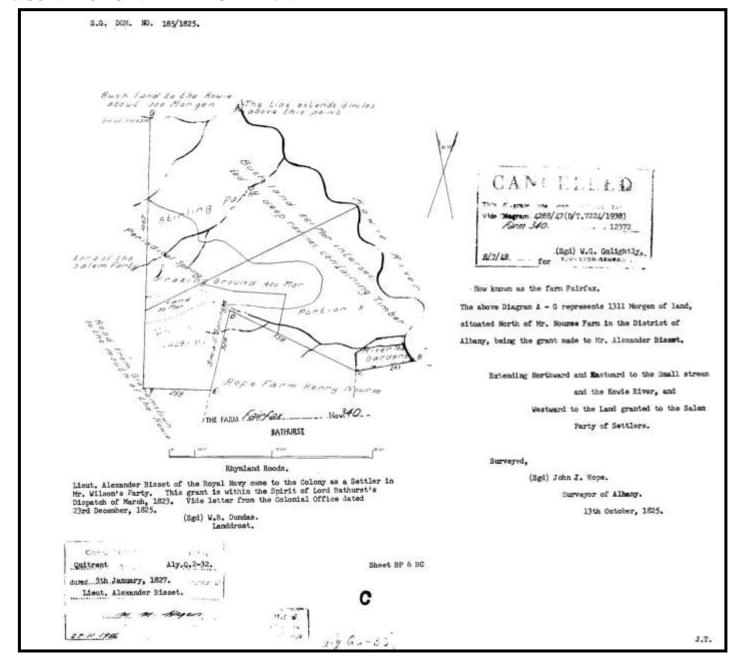


FIG. 45: FAIRFAX FARM IN 1942



ndlambe pipeline (2) Umbando 17/04/2015

FIG. 46: SURVEYOR GENERAL DIAGRAM 1825



<u>ndlambe pipeline (2) Umlando 17/04/2015</u>

CATHCART

Cathcart Farm is situated just outside Peddie. It was surveyed in 1855 and a Title Deed given in 1858 (fig. 47).

"After the 7th [Frontier] War of 1846, the Government decided to abolish the old frontier policy of retaining a vacant tract of territory between the Europeans and the Natives. All natives, with the exception of the Fingoes, who were considered British subjects, were expelled from this area. It was the intention of the Government to settle portions of the old 'neutral territory' with Europeans but this policy was not carried out until after the 8th [Frontier] War of 1852.

A system of settlement suggested by Thomas Holden Bowker but called the 'Cathcart System' came into being - preference was given to applicants who had distinguished themselves during the [Frontier] wars. With certain minor modifications, this system was adopted for the Peddie district in 1854. Farms were granted at a moderate quitrent on condition of personal occupation and performance of certain burgher military duties. With the formation of the Divisional Council of Peddie in June 1858, the valuation of farms for rating purposes proceeded forthwith and one is able to trace the original 'Grantees" and also the names given to their respective farm by their owners. (http://archiver.rootsweb.ancestry.com/th/read/SOUTH-AFRICA-IMMIGRANTS-BRITISH/2003-04/1051763257)

The farm buildings are currently in a poor condition (fig. 48). The pipeline will occur ~100m to the south of the main farm buildings. No features were noted along the pipeline route in this area.

Significance: The site is of high significance as it is one of the original farm buildings. The site is automatically protected by the heritage legislation.

Mitigation: Any middens that are uncovered during the construction phase need to be reported to the ECO.

SAHRA Rating: 3A

FIG. 47: SURVEYOR GENERAL DIAGRAM OF CATHCART

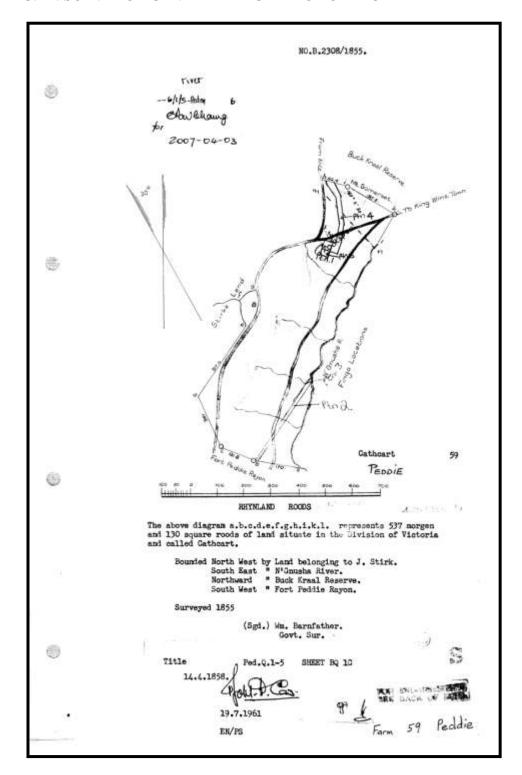
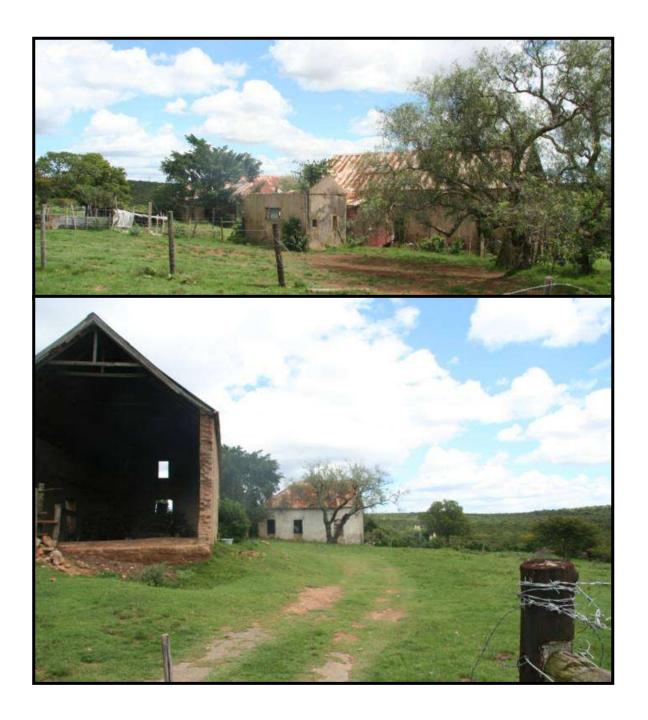


FIG. 47: CATHCART FARM



GRANTS VALLEY

Grants Valley was ceded to Sergeant John Grant and was first surveyed in 1825 (fig. 48). The building occurs on the 1942 map and parts of it may be the original farmhouse (fig. 49). The building is in a good state of preservation (fig. 50) and 19th century middens would occur around these buildings. The pipeline will occur within 20m of the farm buildings.

Significance: The buildings need to be assessed by an architect historian. Any middens in the area would be of medium significance as they could date to the earlier days on the farm.

Mitigation: The pipeline must stay between the road edge and the existing fencing. If the line goes closer to the house, it might need monitoring during the construction phase.

SAHRA Rating: 3A

FIG. 48: SURVEYOR GENERAL MAP OF GRANTS VALLEY

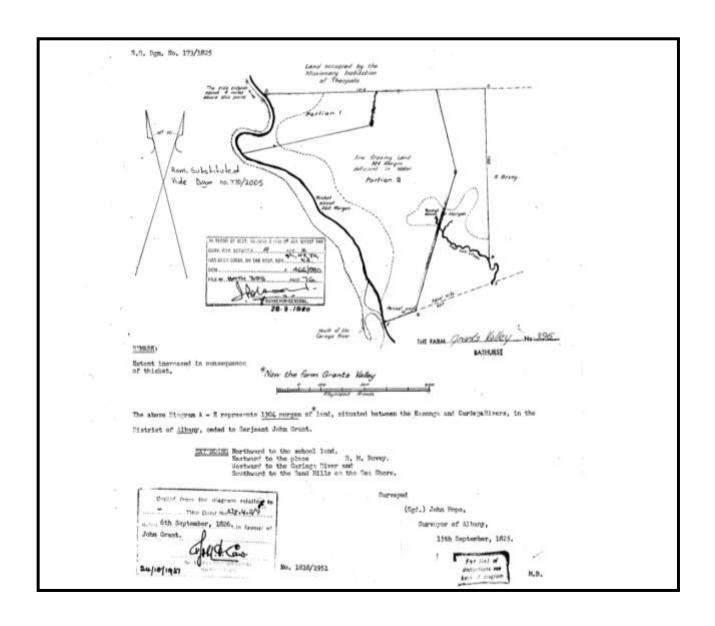


FIG. 49: GRANTS VALLEY FARMHOUSE IN 1942



ndlambe pipeline (2) Umlando 17/04/2015

FIG. 51: GRANTS VALLEY FARMHOUSE



GENERAL FARMS

There are several farms that occur 100m – 200m form the line. All of the farms occur on the 1942 aerial photographs, and most were surveyed in the 1820s – 1850s. These are Hopewell, Mount Wellington, Rocklands, Fords Party, Vectis and Patoskop. The pipeline will currently not affect the buildings.

Significance: The buildings will need to be assessed by an architect historian if they are to be damaged.

Mitigation: No mitigation required. If any middens, near these farm buildings, are exposed, then and ECO and archaeologist will need to be informed.

SAHRA Rating: to be determined

MCDOUGAL CEMETERY

The M^cDougal family cemetery dates back to 1869 (fig. 52). The cemetery consists of several graves in various states of preservation (fig 53). Some of the older graves have no headstones or are partially sunk. Several graves occur under the dense bushes, and it appears that some of the graves may occur within 10m of the fence. These graves would have slumped and thus could be closer to the fence. The entrance to the cemetery consists of a baked red brick wall with an 1869 date on it.

The pipeline is currently placed on the western side of the road and will not affect the cemetery.

Significance: The site is of high significance

Mitigation: The fencing on the side of the cemetery should be clearly demarcated to indicate the location of the cemetery. No construction activity should be allowed on the eastern side of the road adjacent to the cemetery.

SAHRA Rating: 2

FIG.52: LOCATION OF THE M^cDOUGAL CEMETERY



FIG. 51: THE MCDOUGAL CEMETERY





EMQWASHENI/MILKWOOD TREE

Emqwasheni, or Milkwood Tree, is a National Monument located beside the R345 and near the base of a hill. The R345 is part of the Makana Route that connects various historical sites of the area. These sites relate to the interactions between early colonists and the Mfengu, amongst others, in the early to mid-19th century. The monument consists of the old Milkwood, an open interpretative centre, and a building/church (fig. 52). The tree is believed to be the location where the Mfengu came from north of the Kei River area, on 14 May 1835, and converted to Christianity, and agreed to be ruled by the British Queen, in the presence of Rev. John Ayliff (from the plaque at the monument). The Mfengu are believed to have originated from Zululand, and had fled Shaka during the Mfecane. This conversion and pledge to the British had several ramifications:

"The Mfengu or Fingo is a generic name for several distinct groupings of associated clans who fled from Zululand during the time of King Shaka (1818-1828) and settled in the Eastern Cape. It should be emphasized that members this group are to be found in the Transkei as well as the Ciskei: they cannot be characterized as distinctly Ciskeian peoples. After fleeing Zululand, many Mfengu found work in Hintsa's country but they were not regarded as equals of the Xhosa. Discontented they found a listening ear Rev. John Ayliff, the missionary at Butterworth. When the British army crossed the Kei in 1835, the Mfengu revolted and joined the British army, taking their employers cattle with them.

On the 14 May 1835*, the Mfengu gathered under an old milkwood tree in Peddie district, in the presence of the Rev. John Ayliff, and swore a great oath to obey the Queen, to accept Christianity, and to educate their children. This oath was to have momentous consequences. The Mfengu fought alongside the Colonial forces in all the Frontier Wars that followed, 'not as subordinates but as allies in the cause of Christian Civilisation', (source 4) and were rewarded by extensive tracts of Rharhabe land. The Mfengu became the first 'Bantu' in South Africa to use ploughs, demonstrated to them by the missionaries, and the first to plant wheat.

As the 'better-educated' and more European-oriented (sic) group, they naturally secured the bulk of elite positions as clerks, teachers, peasants, and petty traders that were available to Blacks in an elective system based on merit and achievement, as opposed to the pre-colonial Xhosa pattern of strong hereditary chiefs. 'They viewed themselves as the bearers of a great universal Christian Civilization, and tended to

regard the Rharbabe and other Xhosa as backward and uncivilized' (source 3). Several educational institutions, such as those at Lovedale, Healdtown and St Matthews followed these developments.

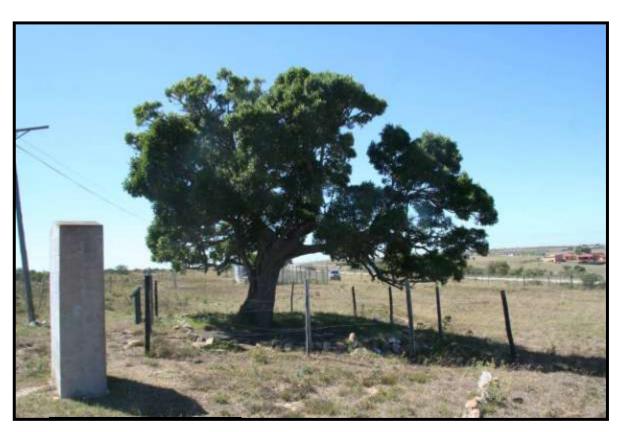
Every 14 May since the day the 'Fingo-Oath' was sworn has been celebrated as Fingo Emancipation Day, with a ceremony held under the old milkwood tree where the oath was sworn' "(http://www.sahistory.org.za/dated-event/fingo-leaders-gather-peddie)⁴

Significance: The site is of high significance. The tree itself is thus central to the beginning of European (economic, social and religious) colonisation of the region.

Mitigation: The pipeline must remain on the western side of the road.

SAHRA Rating: 1

FIG. 52: VIEW OF THE MONUMENT AND BUILDINGS



⁴ The web page cites several authors dealing with the tree. These books are not readily available.

ndlambe pipeline (2) Umbando 17/04/2013

WAGON TRAILS

I was informed of the wagon trail by two landowners. Apparently, wagon trails

have been used over the last 100 years or more by people travelling from the

farms around Cuylerville and Shaws Park area to the east of the Fish River.

However, the trails have been "upgraded" by various equipment and nothing

of the original track would remain (fig. 53). The pipeline will not affect the trail

in fig. 53, as it is ~ 2km to the north. These wagon tracks are part of the oral

history, and living heritage, of the area.

The new pipeline route runs along a similar trail and will have the same

history.

Significance: The site is of low significance as it has been cleared with

mechanised equipment on a few occasions. These trails appear to occur as

general paths in the area.

Mitigation: No further mitigation is required.

SAHRA Rating: 3C

TREE LINES

Several roads are lined with trees, e.g. Pines, Pine2 and BLG01. These long

rows of tress do not occur on the 1942 aerial photographs or the 1950-1960s

topographical maps. They are thus not protected by heritage legislation.

Significance: These boundaries or of no historical significance.

Mitigation: No further mitigation is required.

SAHRA Rating: N/A

FIG. 53: IMAGES OF THE WAGON TRACK: EAST AND WEST SIDE



Page 113 of 164

ARU01, ARU02 & ARU03

ARU01 – 03 were identified as farm labourers' houses on the 1964 1:50 000

topographical map. They occur within 100m of each other. The general area

has been cleared recently (fig. 54). ARU01 had a few bricks and artefacts

that are more recent on the surface. The pipeline will pass through ARU01,

but miss ARU02 and ARU03. There is a possibility that human graves may

be associated with these sites.

Significance: The sites are of low significance provided no human remains

occur.

Mitigation: No further mitigation is required, but the area should be noted as

being sensitive for human remains

SAHRA Rating: 3C

ARU05

ARU05 is located on the Farm Fairfax and was identified on the 1964

topographical map. The site is a settlement for farm labourers and consists of

several houses. Only the foundations remain (fig. 55), and chicken coop. No

graves were observed; however, the landowner had informed me of graves in

the general area.

The line occurs ~100m to the south.

Significance: The site is of low significance.

Mitigation: No further mitigation is required.

SAHRA Rating: 3C

FIG. 54: IMAGES OF ARU01 AND ARU03



FIG. 55: HOUSE FOUNDATIONS AT ARU05



ARU014

ARU014 is a settlement that occurred on the 1964 topographical map. No clear foundations could be observed; however, artefacts from the 1970s onwards were noted on the ground. There is a possibility of human graves in the area. Fig. 56 shows the general cleared areas that could indicated house floors.

The pipeline occurs on the opposite side of the road and will not affect this site

ARU015 and ARU016 are not visible due to dense bush. The same mitigation applies for them as for ARU014

Significance: The sites are of low significance provided no human remains occur.

Mitigation: No further mitigation is required, but the area should be noted as

being sensitive for human remains

SAHRA Rating: 3C

FIG. 56: CLEARED AREAS AT ARU05



GWC01

GWC01 is located on a small rocky outcrop near the road. The site consists of ~10 graves. The most recent grave dates to 1987; however, others appear to be substantially older (fig. 57). The graves are unusual for the area as they are raised cairns. The current landowner informed me that this was undertaken by another landowner who assisted with the cemetery and burials. The graves are probably related to the settlements of PAD-H3 and PAD-H4, of which there is only one remaining house foundation (see Anderson 2012a).

The pipeline will be ~200m from the edge of the cemetery.

Significance: The site is of high significance.

Mitigation: The pipeline cannot be placed on or near the rocky outcrop, and must stay between the base of the outcrop and the road. The general area will need to be clearly demarcated during construction phase.

SAHRA Rating: 3A

FIG. 57: GRAVES AT GWC01



DDT JABU CEMETERY

Webley recorded this site in 2008. I did not record it, as it is over 100m from the pipeline, and on the opposite side of the road. It is noted in this report in case the line is moved. The cemetery consists of the grave of DDT Jabu and his wives, the Tunyiswa family, and several other unmarked graved.

Significance: The site is of high significance.

Mitigation: The pipeline cannot be placed on or near the cemetery and should remain on the eastern side of the road.

SAHRA Rating: 3A

MANAGEMENT PLAN

The project will need to hire an accredited archaeologist to undertake the work, and who will organise the relevant permits. Permits will need to be submitted several months before the project begins. The archaeologist will need to liaise with the ECO and construction team.

Cuylerville Church

The Cuylerville church area forms part of a battlefield. There western side of the dirt road cannot be used as this may affect structures related to the two Frontier Wars. The eastern side of the road is a better option as there are no rocky outcrops that would have been used during one of the battles. This buffer zone should extend for 300m from each side of the entrance gate to the church. The potential battlefield extends 300m south of the church to the T-junction of the Shaw Park road. This section of the pipeline should be surveyed with a metal detector in order to rescue any potential battlefield artefacts. If many artefacts are observed, then the metal detector survey should continue along the alternative route, if that route is chosen.

A permit for trenching in this area will be required from SAHRA.

Fort Peddie and related areas

The pipeline route below Fort Peddie will need to be surveyed with a metal detector for possible Frontier War artefacts. This will need to occur along the entire ridge.

1950s **–** 1960s settlements

All settlements and buildings noted in Table 2 should have a 50m sensitivity buffer placed around them. Some of these settlements may have human remains and these could be exposed by construction. All exposed graves need to be reported to the ECO, SAPS and ECPHRA immediately, and construction will need to stop 20m each side of the find.

Buildings

No buildings may be damaged by the pipeline, regardless of their condition. Ruins and subsurface built structures are considered as buildings.

Historical Middens

Several historical middens may be exposed during the construction phase. Some of these areas, e.g. at Fairfax, will require on-site monitoring by an accredited archaeologist. Other middens will need to be reported to the ECO, who in turn will report it to ECPHRA and the heritage office for the project.

Cemeteries

There needs to be a 25m buffer between the edge of the cemetery, or grave, and the edge of the pipeline footprint. All cemeteries/graves within 50m of the footprint need to be clearly demarcated before construction begins. The demarcation needs to be placed 5m from the edge of the cemetery.

Monuments

No Monuments may be affected. All monuments need to be demarcated in the same way as cemeteries/graves.

CONCLUSION

A heritage survey was undertaken for the Ndlambe Bulk Water Supply Scheme – Sandile Dam to Cannon Rocks. Part of the area was covered in a survey for a previous version of the line. A total of 42 heritage sites were noted during the survey. These sites cover a range of types of heritage sites that include battlefields, buildings, cemeteries, memorials, settlements, shell middens and Stone Age scatters.

None of the heritage sites are red flags, however some require the pipeline to be moved and/or have specific management plans. These management plans include:

- monitoring an area by a qualified archaeologist, sampling and/or excavations
- ECO monitoring for potential middens
- Demarcating areas with a 25m buffer
- Undertaking a metal detector survey

Amatola Water will need to apply for a permit from ECPHRA for affecting some of the sites. This needs to be undertaken at least six months before the project begins. The heritage officer undertaking the mitigation will also require a permit.

REFERENCES

Anderson, G. 2009a. Heritage Survey Of The Ngqamakhwe Water Reticulation, Eastern Cape. For Indwe Environmental Consultants.

Anderson, G. 2009b. Heritage Survey of the Chris Hani Cluster 9 Water Project, Eastern Cape. For Maluti GSM Consulting Engineers

Anderson, G. 2011 .Heritage Survey of the Proposed Ngqamakhwe Wind Energy Project. For Coastal Environmental Services

Anderson, G. 2012a. Heritage Survey Of The Proposed Port Alfred Groundwater Abstraction, Eastern Cape. For Coastal Environmental Services

Anderson, G. 2012b. Heritage Survey Of The Proposed Fish River To Port Alfred Bulk Water Supply, Eastern Cape. For Coastal Environmental Services

Anderson, G. 2012c. Heritage Survey Of The Proposed Pipeline From Cannon Rocks Ro To Kenton-On-Sea, Eastern Cape. For Coastal Environmental Services

Anderson, G. 2013a.Heritage Survey Of The Gcuwa West Bulk Water Supply. For Indwe Environmental Consulting

Attwell, M. 2006. Carpe Diem: Heritage Impact Assessment. An unpublished report by Melanie Attwell & Associate

Binneman, J. 2006. Archaeological Heritage Impact Assessment for the Proposed Carpe Diem Coastal Eco-Estate Development, Great Fish Point: Coastal Forland Survey (Palmiet Annex).

Binneman, J. 2006. Phase 1 Archaeological Heritage Impact Assessment for the Proposed Mixed Use Development on the Farm Rosehill Erf No. 20 Port Alfred, Ndlambe Municipality, District, Eastern Cape.

Cole, K. 2013: pers. comm. via email, 12 September 2013.

Derricourt, R.M. 1977. **Prehistoric Man in the Ciskei and Transkei**. Cape Town: C. Struik (Pty) Ltd

Duncan. G.A. 2013. The origins and early development of Scottish Presbyterian mission in South Africa (1824-1865).

Editor 1969. The Journal of Lt.-Col. John Scott. Military History Journal 1(5).

Feeley, J.M. 1987 **The Early Farmers of Transkei, Southern Africa, Before AD 1870**. Cambridge Monographs in African_Archaeology 24. BAR International Series 378. Cambridge.

Gess, R.W. 2006. Palaeontological Heritage Impact Assessment for the Proposed Carpe Diem Coastal Nature Estate Development, Great Fish Point

Lewis, C.and Mrara, A.Z., 2010. Rural settlements, mission settlements and rehabilitation in Transkei. Geojournal **12(4)**: 375-386

Kruger, N. 2014. Heritage Scan Of The Sandile Water Treatment Works Reservoir Construction Site, Keiskammahoek, Eastern Cape Province. For AGES

ndlambe pipeline (2) Umlando 17/04/2015

Van Ryneveld, K. 2007. Phase 1 Archaeological Impact Assessment: Upgrade of the Waste Water Treatment Works, Port Alfred, Eastern Cape, South Africa

Van Ryneveld, K. 2007a. Phase 1 Archaeological Impact Assessment: Thornhill Phase 1 Ministerial Housing Project, Port Alfred, Eastern Cape, South Africa

Van Ryneveld, K. 2008. Phase 1 Archaeological Impact Assessment - the Albany Regional Water Supply Scheme, Eastern Cape, South Africa.

Webley, L.E. 2007. Letter of Recommendation for the Exemption of a Full Phase 1 Archaeological Impact Assessment: Development of a Retirement Village on a Portion of the Farm Port Alfred Park, in the District of Ndlambe, Eastern Cape

Webley, L.E. 2007b.Heritage Impact Assessment: Portion 7 of the Farm Marselle No. 348 and Erf 343, Bushman's River Mouth, Bushman's River, Eastern Cape.

Webley, L.E. 2007c. Heritage Impact Assessment: La Repose Development, Alexandria, Eastern Cape.

Webley, L.E. 2008. Phase 1 Archaeological Impact Assessment: Dairy Development at Ann Shaw, Middledrift, Eastern Cape

APPENDIX A SITE RECORD FORMS

SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age

Historical Period: x Recent

Recorder's Site No.: AMA01 Official Name: Lower Ngqumeya Local Name: Hlabahlaba

Map Sheet: 3227CA_1954 Keiskammahoek GPS reading: S32 43 29.3 E27 06 33.8

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION

Drive South from the BP Garage in Keiskammahoek then turn left onto the R352 after 657m. Turn right after 385m and then left after 4.0km. AMA01 is located 3.0km from here, on the top of a hill, near the edge of the valley

SITE DESCRIPTION:

Type of Site: Cemetery

Merits conservation: Yes. The site is of high significance.

Threats: No. The pipeline will occur ~100m from the cemetery and thus will not affect it.

What threats: None, currently

RECORDING: Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 13/02/2015

Owner: References:

Description of site and artefactual content.

Site consists of a recent cemetery.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: AMA02

Official Name: Lower Wolf River/ Mbavaneni

Local Name:

Map Sheet: 3227CA_1954 Keiskammahoek GPS reading: S32 43 43.5 E27 06 09.3

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

Drive South from the BP Garage in Keiskammahoek then turn left onto the R352 after 657m. Turn right after 385m. AMA02 is located 8.8km from here, on the western side of the gravel road.

SITE DESCRIPTION:

Type of Site: Ruins

Merits conservation: No mitigation is currently required. There should be a 25m buffer if the line is

moved

The site is will need to be assessed by an architect historian if the pipeline will affect it. There are possible 19th century middens near the buildings, and these are of medium significance and may require sampling/excavation if affected.

Threats: The pipeline that is currently ~ 150m to the east will not affect the site.

What threats: None, currently.

RECORDING: Graphic record: Yes

Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 13/02/2015

Owner: References:

Description of site and artefactual content.

The main site consists of several ruins that occur on the 1954 map. The ruins probably relate to the Mbavaneni/Lower Wolf River Post office, general shop, and a workshop. More buildings occur ~180m to the north on the topographical map, but are not visible on the ground. The site probably dates back to the 19th century trade posts of the general area.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: AMA03

Official Name: Location No. 6 Cwaru

Local Name:

Map Sheet: 3227CC_1956 Dimbaza GPS reading: S32 48 26.7 E27 04 01.1

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

Drive South from the BP Garage in Keiskammahoek then turn left onto the R352 after 657m. Follow the R352 for 19.8km then turn right onto the R63. After 10.6km turn right and then right again after 1.1km. AMA03 is located 1.6km from here, on the eastern side of the road

SITE DESCRIPTION:

Type of Site:

Merits conservation: The site is of high significance

A minimum of a 25m buffer needs to be maintained. The pipeline should not be moved from its

current position.

Threats: The cemetery occurs ~100m from the pipeline. The cemetery will thus not be affected by

the current position of the pipeline footprint.

What threats: None, currently

RECORDING:

Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 13/02/2015

Owner: References:

Description of site and artefactual content.

Site consists of a cemetery



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: AMA04

Official Name: Location No. 6 Cwaru

Local Name:

Map Sheet: 3227CC_1956 Dimbaza GPS reading: S32 48 48.0 E27 04 24.9

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

Drive South from the BP Garage in Keiskammahoek then turn left onto the R352 after 657m. Follow the R352 for 19.8km then turn right onto the R63. After 10.6km turn right and then right again after 1.1km. AMA04 is located 862m from here, on the slopes of a hill leading to the British Ridge Reservoir. British Ridge itself is located ~1km to the southwest

SITE DESCRIPTION:

Type of Site: Anti-erosion walls and terracing Merits conservation: The site is of low significance.

Threats: The pipeline will be missing the rest of the features as recorded by Kruger.

What threats: None, currently

RECORDING: Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 13/02/2015

Owner: References:

Description of site and artefactual content.

The features that I observed were anti-erosion walls and/or supports for terracing (on the lower slopes). In one area, the terracing leads down to a small historical dam, and thus some of the terracing may have been used to direct water flow to the dam. The terracing is low stone walling often with a single row of stones.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age

Historical Period: x Recent

Recorder's Site No.: AMA05

Official Name: Location No. 6 Cwaru:

Local Name:

Map Sheet: 3227CC_1956 Dimbaza GPS reading: S32 48 26.3 E27 01 22.6

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

Drive South from the BP Garage in Keiskammahoek then turn left onto the R352 after 657m. Follow the R352 for 19.8km then turn right onto the R63. Turn right again after 16.6km. AMA05 is located 1.1km from here, to the west of the existing gravel road.

SITE DESCRIPTION:

Type of Site: Cemetery

Merits conservation: The site is of high significance. If the pipeline position is changed, there needs to be at least a 25m buffer between the footprint and the edge of the cemetery.

Threats: The cemetery will not be affected by the current position of the pipeline that is on the

eastern side of the road. What threats: None, currently

RECORDING:
Graphic record: Yes

Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 13/02/2015

Owner: References:

Description of site and artefactual content.

Site consists of a cemetery



ndlambe pipeline (2) Umlando 17/04/2015

SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: AMA06 Official Name: Burnshill Location

Local Name:

Map Sheet: 3227CC_1956 Dimbaza GPS reading: S32 46 20.8 E27 02 58.3

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

Drive South from the BP Garage in Keiskammahoek then turn left onto the R352 after 657m. Follow the R352 for 19.8km then turn right onto the R63. Turn right again after 16.6km. AMA06 is located 5.9km from here.

SITE DESCRIPTION:

Type of Site: Cemetery

Merits conservation: The site is of high significance.

The pipeline needs to be moved to the opposite side of the road. The graves besides the fence

may have subsided and could be exposed by the pipeline

Threats: Yes

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING: Graphic record: Yes

Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 13/02/2015

Owner: References:

Description of site and artefactual content.

AMA06 is a large cemetery dating over several decades. It is currently 140m x 80m in size. The graves vary from formal headstones and demarcated areas, to stone cairns. Several graves are next to the existing fence.



906-7501786 / 8836686362 / 9723481327

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: AMA07 Official Name: Burnshill Location

Local Name:

Map Sheet: 3227CC_1956 Dimbaza

GPS reading: S32 46 06.3 E27 03 06.6 535 m



Drive South from the BP Garage in Keiskammahoek then turn left onto the R352 after 657m. Follow the R352 for 19.8km then turn right onto the R63. Turn right again after 16.6km.

SITE DESCRIPTION:

Type of Site: Historical buildings and ruins of Burns Hill Missionary

Merits conservation: The site (or area) is of medium significance as it can yield information about early missionary churches in the area.

All middens (i.e. rubbish dumps) that are exposed during the course of construction phase need to be assessed for their historical value. The ECO can photograph the middens and send them via MMS to a qualified archaeologist. All OLD blue gum trees form part of the landscape heritage and may not be removed.

Threats: The pipeline footprint remains on the side of the road reserve and thus in disturbed areas.

However, subsurface middens may still occur and need to be assessed if exposed. It is of concern that a reservoir is being built on the top of the hill, and no HIA has been undertaken.

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING: Graphic record: Yes

Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 13/02/2015

Owner: References:

Description of site and artefactual content.

Burns Hill was visited by James Backhouse in February 1839 (pp 229, 230, in http://www.sahistory.org.za/mission-stations-f), who recorded that:

"The Mission premises at Burns Hill consisted of the houses of the Missionary and his assistant, a neat, little, stone chapel, and two cottages belonging to native schoolmasters. Some [Xhosa] also resided near, and Sutu, the reigning widow of Gaika, the late principal chief of Western Caffraria, had her kraal or "Great Place" about a mile distant. ".

rdlambe pipeline [2] Umlando 17/04/2015

SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: AMA08 Official Name: Burnshill Location

Local Name:

Map Sheet: 3227CC_1956 Dimbaza

GPS reading: S32 46 18.0 E27 03 20.1 565 m



Drive South from the BP Garage in Keiskammahoek then turn left onto the R352 after 657m. Follow the R352 for 19.8km then turn right onto the R63. Turn right again after 16.6km and right again after 6.5km. After 119m bear right onto an unpaved road. AMA08 is located 445m from here, near the top of Burns Hill.

SITE DESCRIPTION:

Type of Site: Historical building

Merits conservation: The building will need to be assessed by an architect historian if affected.

No mitigation currently required. Any middens near the church need to be reported.

Threats: The pipeline will not affect the building and the church grounds.

What threats: None, currently.

RECORDING:

Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 13/02/2015

Owner: References:

Description of site and artefactual content.

Site consists of a historical church building. The building does not occur on the aerial photographs and flight plans of AMA07, nor on the 1956 topographical map⁵. The building is dated to 1953 and is thus protected by heritage legislation.

ndlambe pipeline (2) Umlando 17/04/2015



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: AMA09 Official Name: Theopolis 306 Local Name: Hopewell

Map Sheet: 3326DA_DC Boesmansriviermond

GPS reading: S33 36 37.9 E26 40 27.1 114 m

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

Drive South from the BP Garage in Keiskammahoek then turn left onto the R352 after 657m. Follow the R352 for 19.8km then turn right onto the R63. Turn right onto the N2/ Cathcart road after 20.3km and then left onto the R345 after 50.9km. Follow the R345 for 24.3km then turn right onto the R72. Follow the R72 for 89.7km then turn right. AMA09 is located 6.7km from here.

SITE DESCRIPTION:

Type of Site:

Merits conservation: The site is of low significance.

The walling is a built structure that is older than 60 years and thus is protected by the heritage legislation.

Threats: The pipeline occurs on the opposite side of the road and will not affect the walling.

What threats: None, currently

RECORDING:

Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 14/02/2015

Owner: References:

Description of site and artefactual content.

AMA09 is the driveway entrance wall to the farm Hopewell.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: AMA010 Official Name: Theopolis 306 Local Name: Charlegrove

Map Sheet: 3326DA_DC Boesmansriviermond

GPS reading: S33 36 14.3 E26 40 32.7 125 m



DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

Drive South from the BP Garage in Keiskammahoek then turn left onto the R352 after 657m. Follow the R352 for 19.8km then turn right onto the R63. Turn right onto the N2/ Cathcart road after 20.3km. Follow the N2 for 132km and turn left onto the R343 and left again after 12.6km, staying on the R343. After 23.7km turn left, AMA010 is located 7.3km from here, near the road.

SITE DESCRIPTION:

Type of Site: Historical building

Merits conservation: The building is of unknown significance, and would need to be assessed by

an architect historian if affected.

Threats: The building at AMA010 is 25m south of gravel road, and is unlikely to be affected by the

footprint.

What threats: None, currently

RECORDING:

Graphic record: Yes

Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 14/02/2015

Owner: References:

Description of site and artefactual content.

AMA010 is a small building near the road. It is currently used as a storage room. The building relates to ARU4 from the desktop study. On the opposite side of the road are various structures related to cattle holding pens and a few built structures that post-date 1970s and are not protected. The Farm Charlgrove occurs ~175m to the southeast and will not be affected.

SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: AMA011

Official Name: location No. 22 Mxumbu

Local Name: Newtown

Map Sheet: 3227CC_1956 Dimbaza GPS reading: S32 51 43.0 E27 02 36.2

519 m



From the BP Garage in King Williams Town get onto the N2/ Cathcart Street and turn right onto the R63 after 782m. Follow the R63 for 32.6km then turn left. Turn right after 6.6km and right again after 1.1km. AMA011 is located 813m from here, on the eastern side of the hill.

SITE DESCRIPTION:

Type of Site: Cemetery

Merits conservation: The site is of high significance. A 25m buffer from the edge of the cemetery and the edge of the pipeline footprint is required. The cemetery needs to be clearly demarcated before construction begins. The pipeline route in this section is an alternative route. Given the sensitivity of other sites along this route, the alternative should not be used.

Threats: Yes

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING:

Graphic record: Yes

Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 14/02/2015

Owner: References:

Description of site and artefactual content.

AMA011 is a cemetery in the Newtown village. The cemetery is on the eastern side of the hill and is ~80m x 100m in size. The centre point of the line is 28m to the north of the cemetery borders, and thus the footprint will be closer.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: AMA012

Official Name: location No. 22 Mxumbu

Local Name: Newtown

Map Sheet: 3227CC_1956 Dimbaza GPS reading: S32 51 46.4 E27 02 16.1

515 m



From the BP Garage in King Williams Town get onto the N2/ Cathcart Street and turn right onto the R63 after 782m. Follow the R63 for 32.6km then turn left. Turn right after 6.6km, right again after 1.1km and then left after 635m. AMA012 is located 806m from here, on the northern side of the hill above the Debe Dam

SITE DESCRIPTION:

Type of Site: Cemetery

Merits conservation: The site is of high significance

A 25m buffer from the edge of the cemetery and the edge of the pipeline footprint is required. The line will have to move further to the north. The cemetery needs to be clearly demarcated before construction begins. The pipeline route in this section is an alternative route. Given the sensitivity of other sites along this route, the alternative should not be used.

Threats: Yes

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING: Graphic record: Yes

Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 14/02/2015

Owner: References:

Description of site and artefactual content.

AMA012 is a cemetery in the Newtown village. The cemetery is \sim 80m x 100m in size. The centre point of the line is 18m to the north of the cemetery borders, and thus the footprint will be closer.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: AMA013

Official Name: location No. 22 Mxumbu

Local Name: Newtown

Map Sheet: 3227CC_1956 Dimbaza GPS reading: S32 52 26.2 E27 01 35.3

516 m



DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the BP Garage in King Williams Town get onto the N2/ Cathcart Street and turn right onto the R63 after 782m. Follow the R63 for 32.6km then turn left. Turn right after 6.6km, right again after 1.1km and then left after 272m. AMA013 is located 2.4km from here, to the southwest of Newtown on the top of the hill

SITE DESCRIPTION:

Type of Site: Cairn (possible grave)

Merits conservation: The site should be treated as a grave and is thus of high significance until

proven otherwise.

There should be a 25m buffer between the edge of the grave and the edge of the pipeline

footprint.

Threats: Yes. The pipeline will go through this site.

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING: Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 14/02/2015

Owner: References:

Description of site and artefactual content.

This hill had several settlements in the desktop study. AMA013 is a low stone cairn that is covered with a bush. The cairn may (not) be a grave.

SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: AMA014

Official Name: location No. 22 Mxumbu

Local Name: Newtown

Map Sheet: 3227CC_1956 Dimbaza GPS reading: S32 52 26.8 E27 01 29.1

497 m



From the BP Garage in King Williams Town get onto the N2/ Cathcart Street and turn right onto the R63 after 782m. Follow the R63 for 32.6km then turn left. Turn right after 6.6km, right again after 1.1km and then left after 272m. AMA014 is located 2.5km from here, ~160m southwest and slightly downhill of AMA013.

SITE DESCRIPTION:

Type of Site: Grave

Merits conservation: The site is of high significance.

The pipeline needs to be moved if the alternative is chosen. There needs to be a 25m buffer

between the edges of the pipeline footprint and the grave.

Threats: Yes

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING:

Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 14/02/2015

Owner: References:

Description of site and artefactual content.

The site may be related to ARU13 and/or ARU14 from the desktop study. AMA014 consists of a slightly raised mound surrounded by a single oval row of stones.

The pipeline centre point is ~20m from the grave.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: AMA015

Official Name: location No. 22 Mxumbu

Local Name: Newtown

Map Sheet: 3227CC_1956 Dimbaza GPS reading: S32 52 27.7 E27 01 23.3

495 m



DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the BP Garage in King Williams Town get onto the N2/ Cathcart Street and turn right onto the R63 after 782m. Follow the R63 for 32.6km then turn left. Turn right after 6.6km, right again after 1.1km and then left after 272m. AMA015 is located 2.6km from here, ~150m southwest and slightly downhill of AMA014

SITE DESCRIPTION:

Type of Site: House foundations

Merits conservation: The pipeline centre point is ~40m from the grave.

The site is of low significance as no graves were observed.

No mitigation is required; however, there is a possibility of affecting subsurface features such as

graves. I suggest the line is moved further away from the sites.

Threats: Yes

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING: Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 14/02/2015

Owner: References:

Description of site and artefactual content.

The site may be related to ARU115 from the desktop study. AMA015 consists of four raised circular mounds that are the foundations of houses. No graves were observed, but they should occur in the vicinity.

SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: AMA016

Official Name: location No. 22 Mxumbu

Local Name: Newtown

Map Sheet: 3227CC_1956 Dimbaza GPS reading: S32 52 19.1 E27 01 50.2

537 m



DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the BP Garage in King Williams Town get onto the N2/ Cathcart Street and turn right onto the R63 after 782m. Follow the R63 for 32.6km then turn left. Turn right after 6.6km, right again after 1.1km and then left after 272m. AMA016 is located 1.9km from here, near the top of the hill and ~400m northeast uphill of AMA013.

SITE DESCRIPTION:

Type of Site: House foundations

Merits conservation: The pipeline centre point is ~175m from the site and will thus not affect it.

The site is of low significance as no graves were observed.

No mitigation is required; however, there is a possibility of affecting subsurface features such as

graves.

Threats: No

What threats: None, currently

RECORDING: Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 14/02/2015

Owner: References:

Description of site and artefactual content.

The site consists of four raised circular mounds that are the foundations of houses. No graves were observed, but they should occur in the vicinity. A single stone was noted (at the GPS point) that could be a head/foot stone for a grave.

SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: AMA017

Official Name: Location No. 35 Zigodlo

Local Name: Zigodlo

Map Sheet: 3227CC_1956 Dimbaza GPS reading: S32 58 33.8 E27 04 35.3

478 m



DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the BP Garage in King Williams Town get onto the N2/ Cathcart Street and turn right onto the R63 after 782m. Follow the R63 for 23.6km then turn left. Turn left again after 17.0km. AMA017 is located 9.2km from here, halfway up the hill and ~10m west of the road.

SITE DESCRIPTION:

Type of Site: Cemetery

Merits conservation: The site is of high significance.

The pipeline must remain on the opposite side of the road to maintain the 25m buffer.

Threats: Yes. The pipeline appears to be on the opposite side of the road.

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING:

Graphic record: Yes

Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 14/02/2015

Owner: References:

Description of site and artefactual content.

The site consists of a large cemetery ~140m x 80m in size.

SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: AMA018

Official Name:

Local Name: Riverbend

Map Sheet: 3327AA_1998_ED3_peddie

GPS reading: S33 01 21.1 E27 05 12.3 224 m



From the BP garage in King Williams Town get on Botanic Street and drive for 20m then turn right onto Cathcart Street/ N2. Follow this road for 51.7km then turn right onto the R345. Drive for 252m and turn right onto Albert Street, then left onto Church Street after 86m. Drive along Church Street for 13.8km then turn right. Drive for 3.8km then turn left. Turn right after 7.9km and then right again after 359m. AMA018 is located 1.4km from here, at the base of a hill on a flat area of ground just above the Keiskamma River. It is on the Farm Dank Den Governeur.

SITE DESCRIPTION:

Type of Site: Historical building

Merits conservation: The site is of medium significance in terms of the potential 19th century middens that would occur around the building. The structure itself would need to be assessed by an architect historian if affected. A 25m buffer from the building should be placed during construction phase.

No mitigation is currently required.

Threats: The pipeline will occur ~60m east of the building and thus not affect it.

What threats: None, currently

RECORDING: Graphic record: Yes

Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 15/02/2015

Owner: References:

Description of site and artefactual content.

The building exists as a General Dealer on the 1964 topographical map and is referred to as Riverbend. The building occurs on the 1949 aerial photograph as well. The roof was on the building up to 2014 (according to the Google Earth time imagery). The shop is probably one of the original 19th century General Dealer shops and was later converted to a house. The walling is well preserved. The pipeline will occur ~60m east of the building and thus not affect it.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: AMA019

Official Name: Local Name:

Map Sheet: 3227CA_1954 Keiskammahoek GPS reading: S32 44 28.5 E27 05 52.8

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the BP garage in King Williams Town get on Botanic Street and drive for 20m then turn right onto Cathcart Street/ N2. Follow this road then turn right onto the R63 after 782m. Drive for 20.3km then turn right onto the R352 and then turn left after 19.4km. AMA019 is located 10.4km from here, ~95m from the road, and could be associated with the site ARU0155.

SITE DESCRIPTION:

Type of Site: Graves

Merits conservation: The site is of high significance.

No mitigation is required, but a 25m buffer should be kept form the graves. A 50m sensitivity buffer should be placed around ARU155 for possible human graves.

bullet should be placed around ANO 155 for possible fluttian graves.

Threats: The pipeline occurs ~90m to the west of the graves. ARU155 occurs 30m east of the

pipeline.

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING: Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 15/02/2015

Owner: References:

Description of site and artefactual content.

The site consists of 2 – 3 graves next to a prominent tree. The area has a fence around it.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: CR04 Official Name: Richmond 343

Local Name:

Map Sheet: 3326DA_DC Boesmansriviermond GPS reading: S33 43 00.6 E26 35 34.3 13 m

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the Spar in Kenton-on-Sea drive 503m and turn right onto Ocean Avenue. Drive along for 397m then turn left onto Kariega Road. Follow this road for 468m and turn left onto the R72. Follow the R72 for 6.1km then turn left. CR04 is located 4.5km from here, behind the first dune cordon on a grassy plain with small hills,

SITE DESCRIPTION:

Type of Site: Labourer's houses

Merits conservation: The site is of low significance.

No further mitigation is required.

Threats: Yes. The pipeline will occur ~6m behind the house. What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING: Graphic record: Yes

Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 16/02/2015

Owner: References:

Description of site and artefactual content.

The site consists of old labourer's houses and is probably related to CDW-H16 of the 1964 topographical map. There are two rectangular brick houses with a circular bricked water container. No other features were visible.

The pipeline will occur ~6m behind the house.



SITE CATEGORY: (X where applicable)

Stone Age: x Early Iron Age: Late Iron Age Historical Period:

Recorder's Site No.: CR05 Official Name: Klipfontein 346

Local Name:

Map Sheet: 3326DA_DC Boesmansriviermond

GPS reading: S33 42 20.7 E26 36 57.8 35 m



From the Spar in Kenton-on-Sea drive 503m and turn right onto Ocean Avenue. Drive along for 397m then turn left onto Kariega Road. Follow this road for 468m and turn left onto the R72. Follow the R72 for 6.1km then turn left. CR05 is located 3.7km from here, some distance from the current pipeline position. A proposed alternative route passes near CR05.

SITE DESCRIPTION:

Type of Site: Concentration of stone tools

Merits conservation: Yes. The site is of medium significance as the tools are varied, well preserved and associated with faunal remains. The Palaeontological Impact Assessment will rate the site significance. The entire section of this line, from the Boknes River to the R72 at Kenton-on-Sea will need to be monitored during construction by a qualified archaeologist, and probably a palaeontologist as well. The stone tools will need to be sampled and areas with possible archaeological deposit may need to be excavated.

Threats: Yes

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING: Graphic record: Yes

Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 16/02/2015

Owner: References:

Description of site and artefactual content.

The site consists of an area exposed by presumed sand borrow pit 90m x 15m in size. This cutting would also be a good example of the types of artefacts one could expect to find in the general area. The sand has been exposed and removed while the artefacts occur on a hardened clay-like formation. The site consists of a very dense concentration of Middle and Late Stone Age stone tools and palaeontological remains. Some of the faunal remains are not palaeontological, but may be associated with the archaeological material. The stone tools are made on silcrete, CCS, dolerite quartzite and quartz.

A brief site analyses observed the following tools: Middle Stone Age: Irregular cores, Unifacial points, General flakes, Utilised flakes, Late Stone Age:, Irregular cores, Bipolar cores, General flakes. Utilised flakes. Faunal remains

This site is a good example of what can be expected in this area, and I would assume the entire section behind the first dune cordon. The stone tools are well preserved and not sand blasted.

SITE CATEGORY: (X where applicable)

Stone Age: x Early Iron Age: Late Iron Age Historical Period:

Recorder's Site No.: CR06 Official Name: Klipfontein 346

Local Name:

Map Sheet: 3326DA DC Boesmansriviermond

GPS reading: S33 42 22.4 E26 37 12.4 28 m

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the Spar in Kenton-on-Sea drive 503m and turn right onto Ocean Avenue. Drive along for 397m then turn left onto Kariega Road. Follow this road for 468m and turn left onto the R72. Follow the R72 for 3.4km then turn left and then left again after 614m. CR06 is located 1.8km from here, in the middle of the grasslands behind the first dune cordon. The site is only visible in the track.

SITE DESCRIPTION:

Type of Site: Stone tool scatter

Merits conservation: The site is of low-medium significance.

The entire section of this line, from the Boknes River to the R72 at Kenton-on-Sea will need to be monitored during construction. The stone tools will need to be sampled and areas with possible archaeological deposit may need to be excavated.

Threats: Yes

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING: Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 16/02/2015

Owner: References:

Description of site and artefactual content.

The site consists of a scatter of stone tools for 130m. The stones are general flakes on quartzite. There is shell in the track, but these are *Achatina spp.* and are not archaeological. The site probably has shell middens associated with it, and extends into the dense vegetation. This site is an example of the extent of stone tools recorded at CR05 and CR07.



SITE CATEGORY: (X where applicable)

Stone Age: x Early Iron Age: Late Iron Age Historical Period:

Recorder's Site No.: CR07 Official Name: Klipfontein 346

Local Name:

Map Sheet: 3326DA DC Boesmansriviermond

GPS reading: S33 42 15.5 E26 37 25.9 43 m



From the Spar in Kenton-on-Sea drive 503m and turn right onto Ocean Avenue. Drive along for 397m then turn left onto Kariega Road. Follow this road for 468m and turn left onto the R72. Follow the R72 for 3.4km then turn left and then left again after 614m. CR07 is located 1.4km from here, in the middle of the grasslands behind the first dune cordon.

SITE DESCRIPTION:

Type of Site: Stone tool scatter

Merits conservation: The site is of low-medium significance.

The entire section of this line, from the Boknes River to the R72 at Kenton-on-Sea will need to be monitored during construction. The stone tools will need to be sampled and areas with possible archaeological deposit may need to be excavated.

Threats: Yes

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING: Graphic record: Yes

Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 16/02/2015

Owner: References:

Description of site and artefactual content.

The site is a replica, or extension of, CRO6. The stones are general flakes on quartzite. There is shell in the track, but these are *Achatina spp.* and are not archaeological. The site probably has shell middens associated with it, and extends into the dense vegetation. This site is an example of the extent of stone tools recorded at CR05 and CR06.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: CUYLERVILLE CHURCH AND CEMETERY

Official Name: Farm 225

Local Name: Cuylerville Church

Map Sheet: 3327AC_CA_1998_ED3 Fish River Mouth

GPS reading: S33 29 35.9 E27 00 49.8

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the Spar in Kenton-on-Sea drive 503m and turn right onto Ocean Avenue. Drive along for 397m then turn left onto Kariega Road. Follow this road for 468m and turn right onto the R72. Follow the R72 for 44.5km then turn left on Shaw Park Road and then left again after 5.7km. Cuylerville Church and Cemetery is located 1.9km from here.

SITE DESCRIPTION:

Type of Site: Historical buildings

Merits conservation: Yes. The site is of high significance for the following reasons: Declared

National Monument, Battlefield

- Living heritages several descendants of the original settlers still live in the area and "claim" the history.
- Cultural landscape as this is one of the focal points from the Fish River, and due to the Living Heritage
- Historical site along a tourism route
- The plaques associated with cemetery and church has social historical significance in terms of the terminologies used in their descriptions.

The pipeline will not have a visual impact on the area, as it is subsurface. The only visual impact would be during construction. The pipeline also follows the existing road and thus any impact will be negligible. The pipeline does not directly affect the buildings and cemetery. The pipeline will occur 80m - 90m to the east of the buildings. The pipeline will however be going through a battlefield, and be very close to the rocky outcrop with stone walled features. The area on the eastern side of the road does not have any features or outcrops, and I suggest the pipeline is moved to the eastern side of the road.

Mitigation should be in the form of a metal detector survey along the impact area of the pipeline. The survey would begin ~330m south of the church, and extend to the Shaw Park Road. The Xhosa-speaking people would have taken this general direction from the Fish River. This impact area would include the trench and the spill piles from trenching. The aim of a metal detector survey would be to collect and map any potential battlefield artefacts before they are displaced by construction activity. The artefacts ideally should be curated by a local museum such as in Port Alfred that deals specifically with the area. The western side of the road should be declared "nogo" area for the duration of the construction. The survey should occur up to the top of the hill and perhaps further depending on the quantity and quality of finds.

Threats: Yes

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

Page 148 of 164

RECORDING: Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 16/02/2016

Owner: References:

Description of site and artefactual content.

The Cuylerville Church, the cemetery and surrounding land has its colonial roots that date back to the first 1820s Settlers. The area forms a central part to the history of Port Alfred, and the 6th and 7th Frontier Wars (1846 and 1851) (see Nash 1982; for summary see http://www.sahistory.org.za/topic/conquest-eastern-cape-1779-1878). The church buildings dates to 1825 and it has been used as a school, church and place of refuge during the Frontier Wars. There are two buildings on the property, while the cemetery is 200m to the west.

The 6th Frontier War of 1846 consisted of a battle around the church. During this battle, the Settlers took shelter in the church while those directly involved in the battle were probably in defensive structures around the then school. To the east of the church is a small rock outcrop that extends to the road. There are several small stone walled features on this outcrop. These features probably relate to defensive structures used during the two Frontier Wars. These are unrecorded features and not mentioned on the National Monuments Council plaque.

The battlefield, for the two Frontier Wars, has not been precisely mapped. These types of battles tended to have "running" battles in addition to the defensive positions. Any area within 1km of a battlefield should thus be considered as part of the battlefield. Recent surveys⁶ by Umlando at the Battle of Vaalkrans, KwaZulu-Natal, extended the battlefield by 6km to the south. Approximately 80 artefacts were recovered from this metal detector survey in an area of 30m x 7km. This extension occurred even after consulting with maps of the battlefield and historical experts. The battlefield in the Cuylerville area will need to be mitigated.

ndlambe pipeline (2) Umlando 17/04/2015

⁶ This report is currently not available for citation or public review

SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: FORT PEDDIE

Official Name: Lot 125

Local Name: Fort Peddie, Cavalry Barracks, Cemetery.

Map Sheet: 3327AA_1998_ED3_Peddie GPS reading: S33 11 38.0 E27 07 28.8

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the Spar in Kenton-on-Sea drive 503m and turn right onto Ocean Avenue. Drive along for 397m then turn left onto Kariega Road. Follow this road for 468m and turn right onto the R72. Follow the R72 for 92km then turn left on the R345. Follow the R345 for 24km then turn right. Fort Peddie is located 536m from here.

SITE DESCRIPTION:

Type of Site: Fort Peddie, Cavalry Barracks, Cemetery

Merits conservation: Yes. The site is of high significance and all three are National Monuments: The pipeline footprint will need to be surveyed with a metal detector before construction phase by a qualified archaeologist. A permit for the survey will be required. Not all artefacts will be adequately recorded.

The pipeline will pass the eastern side of the Fort and cemetery by ~130m. The pipeline is passing a potential battlefield. While no features are present, there will be subsurface artefacts relating to the battle. The pipeline footprint will disturb these artefacts, as it will move the position of various artefacts that can in turn give more information on the battle itself. The impact of the pipeline will not be high if mitigation is undertaken.

Threats: Yes

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING: Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 16/02/2015

Owner: References:

Description of site and artefactual content.

The Fort is a stone walled building. The cemetery is just below and has several Frontier War Graves. The Cavalry Barracks is just below the Fort and across the road.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: CHIEFS MSUTU & NJOKWENI MEMORIAL

Official Name: Chiefs Msutu & Njokweni Memorial

Local Name:

Map Sheet: 3327AC_CA_1998_ED3 Fish River Mouth

GPS reading: S33 17 50.6 E27 04 50.4

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the Spar in Kenton-on-Sea drive 503m and turn right onto Ocean Avenue. Drive along for 397m then turn left onto Kariega Road. Follow Kariega Road for 33.5km then turn right onto the R343. Drive along for 12.6km then turn right onto the N2. Follow the N2 for 72km then turn right towards Great Fish River Mouth. The memorial is located 5.4km from here.

SITE DESCRIPTION:

Type of Site: Memorial

Merits conservation: The pipeline currently occurs on the opposite side of the road.

The site is of high significance

The pipeline must remain on the opposite side of the road.

Threats: Yes

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING: Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 16/02/2015

Owner: References:

Description of site and artefactual content.

The site is a memorial for local conflict in the 1950s and 1960s commonly referred to as 'The Trust Wars'. While the initial conflict was over cattle/sheep dipping, soil conservation and rehabilitation, it led to land dispossession by local communities. The local communities were divided between accepting, what was referred to as, 'betterment'. Chiefs Msutu and Njokweni opted for "betterment' against the wishes of their fathers and were subsequently murdered as collaborators.

"The monument honours the rights of people to differ – and stand for tolerance and reconciliation" (monument test).

The settlement ARU38 occurs in the area of the memorial.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: Frontier Memorial

Official Name: Fort Cox Agricultural Farm Lot 22

Local Name:

Map Sheet: 3227CC 1956 Dimbaza GPS reading: S32 46 45.3 E27 02 20.8

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the BP Garage in Alice get onto the R63 and drive east. Turn left after 21.2km, the Frontier Memorial is located 4.6km from here. This memorial is placed on a small island at a Yintersection.

SITE DESCRIPTION:

Type of Site:

Merits conservation: Yes. The pipeline will occur on the eastern side of the road. The site is of high significance as it is a memorial and it is older than 60 years

The pipeline may not affect the memorial. The memorial should have a 5m buffer placed around it during construction.

Threats: Yes

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING: Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 16/02/2015

Owner: References:

Description of site and artefactual content.

The memorial is for British soldiers who died at the Fort Cox, Fort White, Burns Hill, Middle Drift, and Debe Nek. The soldiers are not buried here. The memorial was erected in 1934 for those who died in the general vicinity.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: Vergenoeg

Official Name: Erf 12 Local Name: Vergenoeg

Map Sheet: 3327AA_1998_ED3_Peddie GPS reading: S33 03 52.9 E27 05 53.5

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the BP Garage in Alice get onto the R63 and drive West for 361m then turn left onto Catherine Street. Drive for 475m then turn right onto the R63, which you follow for 5.0km before turning left onto the R345. Drive for 51.3km then turn left and then left again after 3.8km. Vergenoeg is located 2.5km from here.

SITE DESCRIPTION:

Type of Site: Historical farm and associated buildings

Merits conservation: Yes. The pipeline footprint will occur 20m – 30m form the front of the house. The site is of low-medium significance as it may yield 19th century middens. A distance of 200m, or 100m each side of the ruin, should be monitored during construction for possible 19th century middens and artefacts. A metal detector survey would assist in the monitoring.

Threats: Yes

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING: Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 16/02/2015

Owner: References:

Description of site and artefactual content.

Vergenoeg is located north of Peddie and was one of the first colonial farms in the area (Lot 12) – SG diagrams not available online. The farm occurs on the 1949 aerial maps. The adjacent farm Guanga 10 was surveyed in 1853 and Shorncliff 18 in 1883. Since the farms were allotted before they were surveyed one can assume Vergenoeg dates to before or around the 1850s – a more accurate deeds office search will be required to get an exact date. The farm is currently in ruin with a gravel road (and thus pipeline) ~30m in front of it. The 1998 topographical map indicates the farm as an existing building, while the 2003 aerial photograph shows it has been demolished. No family cemetery was observed. The main building is ~20m x 16m in size, with at least three outer buildings. The outer buildings have been destroyed. 20th century artefacts were noted on the surface.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: Siesta Official Name: Walsingham 297

Local Name: Siesta

Map Sheet: 3326DA_DC Boesmansriviermond

GPS reading: S33 34 37.6 E26 44 44.3

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the Spar in Kenton-on-Sea get on Kenton Road and drive south west for 503m then turn right onto Ocean Avenue. Drive for 397m then turn left onto Kariega Road and then right onto the R72 after 468m. Follow the R72 for 10.8km then turn left and then left again after 7.6km. Siesta is located 664m from here, ~95m from the gravel road.

SITE DESCRIPTION:

Type of Site: Partial ruin

Merits conservation: The pipeline occurs ~100m to the southeast of the farm buildings and will

thus not affect the site.

The buildings would need to be assessed to determine their significance

Threats: No

What threats: None, currently

RECORDING: Graphic record: Yes

Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 16/02/2015

Owner: References:

Description of site and artefactual content.

Siesta is an abandoned farmhouse. The house is partly in ruin. The farm building occurs on the 1942 aerial photographs and probably dates to the 19th century. The land Walsingham was originally granted to a Captain H. Crause and surveyed in 1826. Siesta is on an area designated for grazing. The existing gravel road runs along the same route as the original road.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: Fairfax Official Name: Fairfax 340 Local Name: Fairfax

Map Sheet: 3326DB_1998_ED3_Port Alfred GPS reading: S33 34 14.4 E26 49 17.5

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the Spar in Kenton-on-Sea get on Kenton Road and drive south west for 503m then turn right onto Ocean Avenue. Drive for 397m then turn left onto Kariega Road and then right onto the R72 after 468m. Follow the R72 for 20.3km then turn left and then right after 4.9km. Fairfax is located 2.0km from here.

SITE DESCRIPTION:

Type of Site: Historical farm and associated buildings

Merits conservation: Yes. The current line occurs just behind the sheds, and it will thus affect older structures.

The site is of high significance, as it appears to be the original farmhouse, although an exact date is still required. The edge of the pipeline footprint needs to be at least 25m from any existing built structure. The final route will need to be verified by an HIA practitioner as the current route is too close to the house and goes through older structures. Areas within 100m radius of the house will require monitoring during construction phase. This would be to sample and/or excavate any historical middens that might be exposed. The sand dunes need to be monitored during the construction phase. This would be to sample and/or excavate possible shell middens.

Threats: Yes

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING:
Graphic record: Yes

Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 16/02/2015

Owner: References:

Description of site and artefactual content.

Fairfax appears to be the original farmhouse, or at least a 19th century farmhouse from the Farm Fairfax. There have been several walls added onto the farm over time. The farm was originally surveyed in 1825. By 1942, there was only one farmhouse on the farm. The buildings and related walling is thus protected by the heritage legislation. There will be numerous historical middens throughout the area surrounding the various buildings, and some of these may date to the 1820s. Any area within 50m of the buildings will be sensitive for middens.

I spoke to Mr Cockcroft, the current landowner, who informed me of a few farm labourers' graves to the south and southeast of the farm buildings.

There is an area of sand dunes ~350m southwest of the house. No artefacts were noted in the open areas, but they could occur below the surface. These sites would be deflation hollows with Stone Age shell middens.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: Cathcart Official Name: Cathcart 59

Local Name:

Map Sheet: 3327AA_1998_ED3_Peddie GPS reading: S33 10 40.8 E27 07 16.5

Underdo: Archeelogical Fouriers A financia: Birragament 9.0. See 900000, Merch-Onc. 3001 PH: 006 F00700 a 10800065002 / 0720481027

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the Spar in Kenton-on-Sea get on Kenton Road and drive south west for 503m then turn right onto Ocean Avenue. Drive for 397m then turn left onto Kariega Road and then right onto the R343 after 33.5km. Turn right onto the N2 towards Grahamstown after 12.6km. Cathcart is located 83.1km from here, just outside of Peddie.

SITE DESCRIPTION:

Type of Site: Historical farm and associated buildings

Merits conservation: The pipeline will occur ~100m to the south of the main farm buildings. No features were noted along the pipeline route in this area.

The site is of high significance as it is one of the original farm buildings. The site is automatically protected by the heritage legislation.

Any middens that are uncovered during the construction phase need to be reported to the ECO.

Threats: Yes

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING:
Graphic record: Yes

Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 16/02/2015

Owner: References:

Description of site and artefactual content.

Cathcart Farm is situated just outside Peddie. It was surveyed in 1855 and a Title Deed given in 1858.

"After the 7th [Frontier] War of 1846, the Government decided to abolish the old frontier policy of retaining a vacant tract of territory between the Europeans and the Natives. All natives, with the exception of the Fingoes, who were considered British subjects, were expelled from this area. It was the intention of the Government to settle portions of the old 'neutral territory' with Europeans but this policy was not carried out until after the 8th [Frontier] War of 1852. A system of settlement suggested by Thomas Holden Bowker but called the 'Cathcart System' came into being - preference was given to applicants who had distinguished themselves during the [Frontier] wars. With certain minor modifications, this system was adopted for the Peddie district in 1854. Farms were granted at a moderate quitrent on condition of personal occupation and performance of certain burgher military duties. With the formation of the Divisional Council of Peddie in June 1858, the valuation of farms for rating purposes proceeded forthwith and one is able to trace the original 'Grantees" and also the names given to their respective farm by their owners. (http://archiver.rootsweb.ancestry.com/th/read/SOUTH-AFRICA-IMMIGRANTS-BRITISH/2003-04/1051763257)

ndlambe pipeline (2) Umlando 17/04/2015

SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: Grants Valley

Official Name: Local Name: Map Sheet:

GPS reading: S33 39 38.3 E26 40 49.2

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the Spar in Kenton-on-Sea get on Kenton Road and drive south west for 503m then turn right onto Ocean Avenue. Drive for 397m then turn left onto Kariega Road and then right onto the R72 after 468m. Follow the R72 for 2.3km then turn left. Grants Valley is located 837m from here.

SITE DESCRIPTION:

Type of Site: Historical farm and associated buildings

Merits conservation: The pipeline will occur within 20m of the farm buildings.

The buildings need to be assessed by an architect historian. Any middens in the area would be of medium significance as they could date to the earlier days on the farm.

The pipeline must stay between the road edge and the existing fencing. If the line goes closer to the house, it might need monitoring during the construction phase.

Threats: Yes

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING: Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 16/02/2015

Owner: References:

Description of site and artefactual content.

Grants Valley was ceded to Sergeant John Grant and was first surveyed in 1825. The building occurs on the 1942 map and parts of it may be the original farmhouse. The building is in a good state of preservation and 19th century middens would occur around these buildings.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: McDougal Cemetery

Official Name: Grants Valley

Local Name: Map Sheet:

GPS reading: S33 39 47.1 E26 41 01.1



From the Spar in Kenton-on-Sea get on Kenton Road and drive south west for 503m then turn right onto Ocean Avenue. Drive for 397m then turn left onto Kariega Road and then right onto the R72 after 468m. Follow the R72 for 2.3km then turn left. McDougal Cemetery is located 432m from here.

SITE DESCRIPTION:

Type of Site: Cemetery

Merits conservation: The pipeline is currently placed on the western side of the road and will not affect the cemetery.

The site is of high significance

The fencing on the side of the cemetery should be clearly demarcated to indicate the location of the cemetery. No construction activity should be allowed on the eastern side of the road adjacent to the cemetery.

Threats: No

What threats: None, currently

RECORDING: Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 16/02/2015

Owner: References:

Description of site and artefactual content.

The M^cDougal family cemetery dates back to 1869. The cemetery consists of several graves in various states of preservation. Some of the older graves have no headstones or are partially sunk. Several graves occur under the dense bushes, and it appears that some of the graves may occur within 10m of the fence. These graves would have slumped and thus could be closer to the fence. The entrance to the cemetery consists of a baked red brick wall with an 1869 date on it.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: ARU1-3 Official Name: Grants Valley 396

Local Name:

Map Sheet: 3326DA DC Boesmansriviermond

GPS reading: S33 39 00.0 E26 40 12.2

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the Spar in Kenton-on-Sea get on Kenton Road and drive south west for 503m then turn right onto Ocean Avenue. Drive for 397m then turn left onto Kariega Road and then right onto the R72 after 468m. Follow the R72 for 2.3km then turn left. ARU1-3 is located 2.4km from here.

SITE DESCRIPTION:

Type of Site: Labourer's houses

Merits conservation: The sites are of low significance provided no human remains occur. **Mitigation:** No further mitigation is required, but the area should be noted as being sensitive for

human remains Threats: Yes

What threats: THE NDLAMBE BULK WATER SUPPLY SCHEME

RECORDING: Graphic record: Yes

Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 16/02/2015

Owner: References:

Description of site and artefactual content.

ARU01 – 03 were identified as farm labourers' houses on the 1964 1:50 000 topographical map. They occur within 100m of each other. The general area has been cleared recently. ARU01 had a few bricks and artefacts that are more recent on the surface. The pipeline will pass through ARU01, but miss ARU02 and ARU03. There is a possibility that human graves may be associated with these sites.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: ARU5 Official Name: Fairfax 340

Local Name:

Map Sheet: 3326DB_1998_ED3_Port Alfred GPS reading: S33 34 11.1 E26 49 45.5

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the Spar in Kenton-on-Sea get on Kenton Road and drive south west for 503m then turn right onto Ocean Avenue. Drive for 397m then turn left onto Kariega Road and then right onto the R72 after 468m. Follow the R72 for 20.3km then turn left and then right after 4.9km. ARU5 is located 2.9km from here on the farm Fairfax.

SITE DESCRIPTION:

Type of Site: Labourer's houses

Merits conservation: No. The line occurs ~100m to the south.

The site is of low significance. No further mitigation is required.

Threats: No

What threats: None, currently

RECORDING: Graphic record: Yes

Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 16/02/2015

Owner: References:

Description of site and artefactual content.

ARU05 is located on the Farm Fairfax and was identified on the 1964 topographical map. The site is a settlement for farm labourers and consists of several houses. Only the foundations remain, and chicken coop. No graves were observed; however, the landowner had informed me of graves in the general area.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age

Historical Period: x Recent

Recorder's Site No.: ARU14-16 Official Name: Patoskop 219

Local Name:

Map Sheet: 3327AC CA 1998 ED3 Fish River Mouth

GPS reading: S33 26 09.0 E27 04 21.2

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the Spar in Kenton-on-Sea get on Kenton Road and drive south west for 503m then turn right onto Ocean Avenue. Drive for 397m then turn left onto Kariega Road and then right onto the R72 after 468m. Follow the R72 for 52.2km then turn left and then bear left after 1.5km. Turn left after 10.4km and then turn right after 1.3km. After 49m turn left, then right after 494m and then left after 251m. ARU14-16 is located 4.2km from here.

SITE DESCRIPTION:

Type of Site: Settlement

Merits conservation: No. The pipeline occurs on the opposite side of the road and will not affect

this site

ARU015 and ARU016 are not visible due to dense bush. The same mitigation applies for them as

for ARU014

The sites are of low significance provided no human remains occur.

No further mitigation is required, but the area should be noted as being sensitive for human remains.

Threats: No

What threats: None, currently

RECORDING: Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 16/02/2015

Owner: References:

Description of site and artefactual content.

ARU014 is a settlement that occurred on the 1964 topographical map. No clear foundations could be observed; however, artefacts from the 1970s onwards were noted on the ground. There is a possibility of human grayes in the area.

The pipeline occurs on the opposite side of the road and will not affect this site



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age

Historical Period: x Recent

Recorder's Site No.: DDT Jabu Cemetery

Official Name: Ann Shaw

Local Name:

Map Sheet: 3227CC_1956 Dimbaza GPS reading: S32 50 23.3 E27 00 52.6

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the BP Garage in Alice get onto the R63 and drive east for 20.1km then turn right. Follow this road for 604m then turn right, then left after 77m. Drive for 2.4km then turn right. DDT Jabu Cemetery is located 360m from here.

SITE DESCRIPTION:

Type of Site: Cemetery

Merits conservation: The cemetery is of high significance, but 100m from the pipeline, and on the

opposite side of the road. It is only noted in this report in case the line is moved.

Threats: No

What threats: None, currently

RECORDING: Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 16/02/2015

Owner: References:

Description of site and artefactual content.

Webley recorded this site in 2008. I did not record it, as it is over 100m from the pipeline, and on the opposite side of the road. It is noted in this report in case the line is moved. The cemetery consists of the grave of DDT Jabu and his wives, the Tunyiswa family, and several other unmarked graves.



SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period:

Recorder's Site No.: Emqwasheni

Official Name: Erf 27 Local Name: Emqwasheni Map Sheet: 3327AA Peddie

GPS reading: S32 52.894 E27 22.687

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the Engen Garage in King Williams Town get onto the N2 and follow it for 44.6km then turn right. After 1.7km, turn right onto the R345. The tree is 7.4km from here.

SITE DESCRIPTION:

Type of Site: National Monument

Merits conservation: Yes

Threats: Yes

What threats: Peddie wind farm

RECORDING: Graphic record: Yes

Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin Anderson Address: PO Box 102532, Meerensee, 3901

Date: 28/01/2012

Owner: References:

Description of site and artefactual content.

Emqwasheni, or Milkwood Tree, is a National Monument located beside the R345 and near the base of a hill. The R345 is part of the Makana Route that connects various historical sites of the area. These sites relate to the interactions between early colonists and the Mfengu, amongst others, in the early to mid-19th century. The monument consists of the old Milkwood, an open interpretative centre, and a building/church. The tree is believed to be the location where the Mfengu came from north of the Kei River area, on 14 May 1835, and converted to Christianity, and agreed to be ruled by the British Queen, in the presence of Rev. John Ayliff (from the plaque at the monument). The Mfengu are believed to have originated from Zululand, and had fled Shaka during the Mfecane.

SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: Wagon Track

Official Name: Local Name:

Map Sheet: 3327AC & CA Fish River Mouth GPS reading: S33 24.431 E27 02.035



DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From Kenton-on-Sea drive east on the R72 for 45.7km, then turn left onto Shaw Park Road. Follow this road for 6.2km then turn right. Turn right again after 4.2km and then left after 796m. The wagon track is 6.0km from here.

SITE DESCRIPTION:

Type of Site: Historical Wagon Track

Merits conservation: No

Threats: Yes

What threats: Fish River to Port Alfred Bulk Water Supply

RECORDING: Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin Anderson Address: PO Box 102532, Meerensee, 3901

Date: 24/02/2012

Owner: References:

Description of site and artefactual content.

I was informed of the wagon trail by two landowners. Apparently, the wagon trail has been used over the last 100 years or more by people travelling from the farms around Cuylerville and Shaws Park area to the east of the Fish River. The trail has however been "upgraded" by various equipment and nothing of the original track remains.

SITE CATEGORY: (X where applicable)

Stone Age: Early Iron Age: Late Iron Age Historical Period: X

Recorder's Site No.: **GWC01** Official Name: Olive Burn 268

Local Name:

Map Sheet: 3326DB Port Alfred

GPS reading: S33 31.748 E26 56.138 122 m



DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From the Boesmans River Bridge in Kenton-on-Sea, drive east for 27.1km and turn left onto Bathurst Street. After 662m, turn right onto road. After 7.0km turn right again and yet again after 1.0km. GWC01 is 304m from here, on a small rocky outcrop near the road.

SITE DESCRIPTION:

Type of Site: Graves Merits conservation: Yes

Threats: Yes

What threats: Port Alfred groundwater abstraction

RECORDING:

Graphic record: Yes

Digital pictures: x Tracings: Re-drawings:

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 102532, Meerensee, 3901

Date: 27/02/2012

Owner: References:

Description of site and artefactual content.

The site consists of ~10 graves. The most recent grave dates to 1987; however, others appear to be substantially older. The graves are unusual for the area as they are raised cairns. The current landowner informed me that this was undertaken by another landowner who assisted with the cemetery and burials.

The graves are probably related to the settlements of PAD-H3 and PAD-H4,

xallambe pipeline [2] Umbando 117/04/2015