

-) UMBILICAL COORDINATES ARE THE POSITIONS OF THE R.O.Y. (REMOTELY OPERATED VEHICLE) LOCATED AT THE POINTS USING VERIPOS LD2 ULTRA DGPS RECEIVING SPOTBEAM CORRECTIONS, VERIPOS STANDARD DGPS RECEIVING INMARSAT CORRECTIONS POSITIONING AND SONARDYNE FUSION LBL (LONG BASELINE) ACOUSTIC POSITIONING.
- 2) SURVEYED COORDINATES TRANSFORMED FROM NAD83 (GPS DATUM) NADCON VERSION 2.1. 3) THIS DRAWING IS NOT FOR NAVIGATION. PIPELINES AND FEATURES IN THE IMMEDIATE VICINITY ARE OBTAINED FROM BOEM (BUREAU OF OCEAN ENERGY MANAGEMENT) & BSEE (BUREAU OF SAFETY AND ENVIRONMENTAL
- 4) AS-BUILT SURVEY DATE: JANUARY 30 & FEBRUARY16,17, 2014

LEGEND

AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-03) SEG#18855

-----EXISTING PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS PROPOSED PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS ------

> UTEC AS-LAID FLYING LEADS MOORING WIRES

LEASE BLOCK BOUNDARIES PROPOSED STRUCTURES

EXISTING STRUCTURES UTEC AS-FOUND/AS-BUILT STRUCTURES

GEOGRAPHICAL TICKS

UTM TICKS WELLS

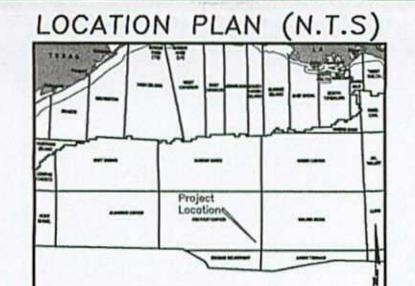
GEODESY

KC875

Survey Datum: NAD 27 Ellipsold: Clarke 1866 Projection: Universal Transverse Mercator ZONE 15N Longitude of Central Meridian: 93°W False Easting (m): 500 000 False Northing (m): 0 Scale Factor at Central Meridian: 0.99950 Units: US Survey Feet

CERTIFIED CORRECT AS TO THE HORIZONTAL POSITION OF THE AS-BUILT UMBILICAL BASED ON THE SURVEY METHODS NOTED. NATHAN EBY, R.P.L.S. TEXAS REG #6198

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LUCIUS DEVELOPMENT PROJECT

AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-03)

SEGMENT#18855 KEATHLEY CANYON BLOCK 875

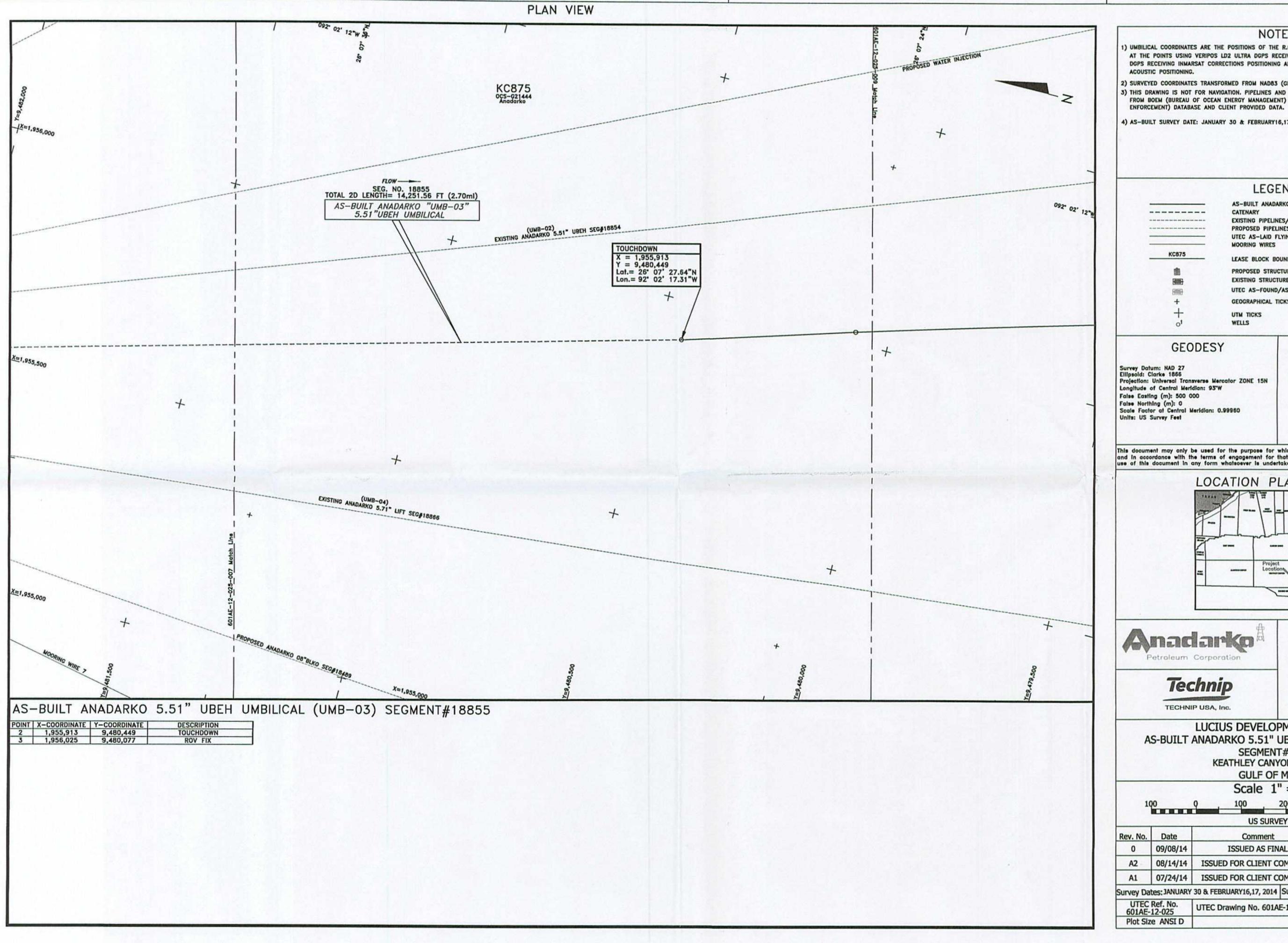
GULF OF MEXICO

Scale 1" = 100' 100 , 200 , 300

US SURVEY FEET						
Rev. No.	Date	Comment	Interpr.	Checked	Appr.	
0	09/08/14	ISSUED AS FINAL	VR	MG	JL	
A2	08/14/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL	
A1	07/24/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL	

Survey Dates: JANUARY 30 & FEBRUARY16,17, 2014 Survey Vessel: GLOBAL ORION

UTEC Ref. No. 601AE-12-025	UTEC Drawing No. 601AE-12-025-007	Sheet Of	Of		
601AE-12-025	OTEC Didning No. COLLE IE CES CO	- 001 00	17		
Plot Size ANSI D		001 00	,		



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- 4) AS-BUILT SURVEY DATE: JANUARY 30 & FEBRUARY16,17, 2014

LEGEND

AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-03) SEG#18855 CATENARY ------EXISTING PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS PROPOSED PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS UTEC AS-LAID FLYING LEADS

KC875 LEASE BLOCK BOUNDARIES

MOORING WIRES

PROPOSED STRUCTURES EXISTING STRUCTURES

UTEC AS-FOUND/AS-BUILT STRUCTURES GEOGRAPHICAL TICKS

UTM TICKS WELLS

GEODESY

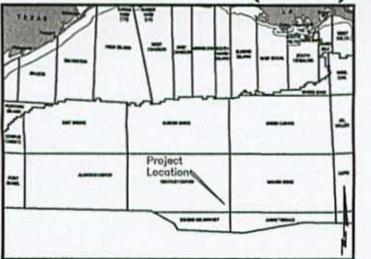
Survey Datum: NAD 27 Ellipsold: Clarke 1866 Projection: Universal Transverse Mercator ZONE 15N Longitude of Central Meridian: 93'W False Easting (m): 500 000 False Northing (m): 0 Scale Factor at Central Meridian: 0.99960

CERTIFIED CORRECT AS TO THE HORIZONTAL POSITION OF THE AS-BUILT UMBILICAL BASED ON THE SURVEY METHODS NOTED.

NATHAN EBY, R.P.L.S. TEXAS REG #6198

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LUCIUS DEVELOPMENT PROJECT AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-03) SEGMENT#18855

KEATHLEY CANYON BLOCK 875 GULF OF MEXICO

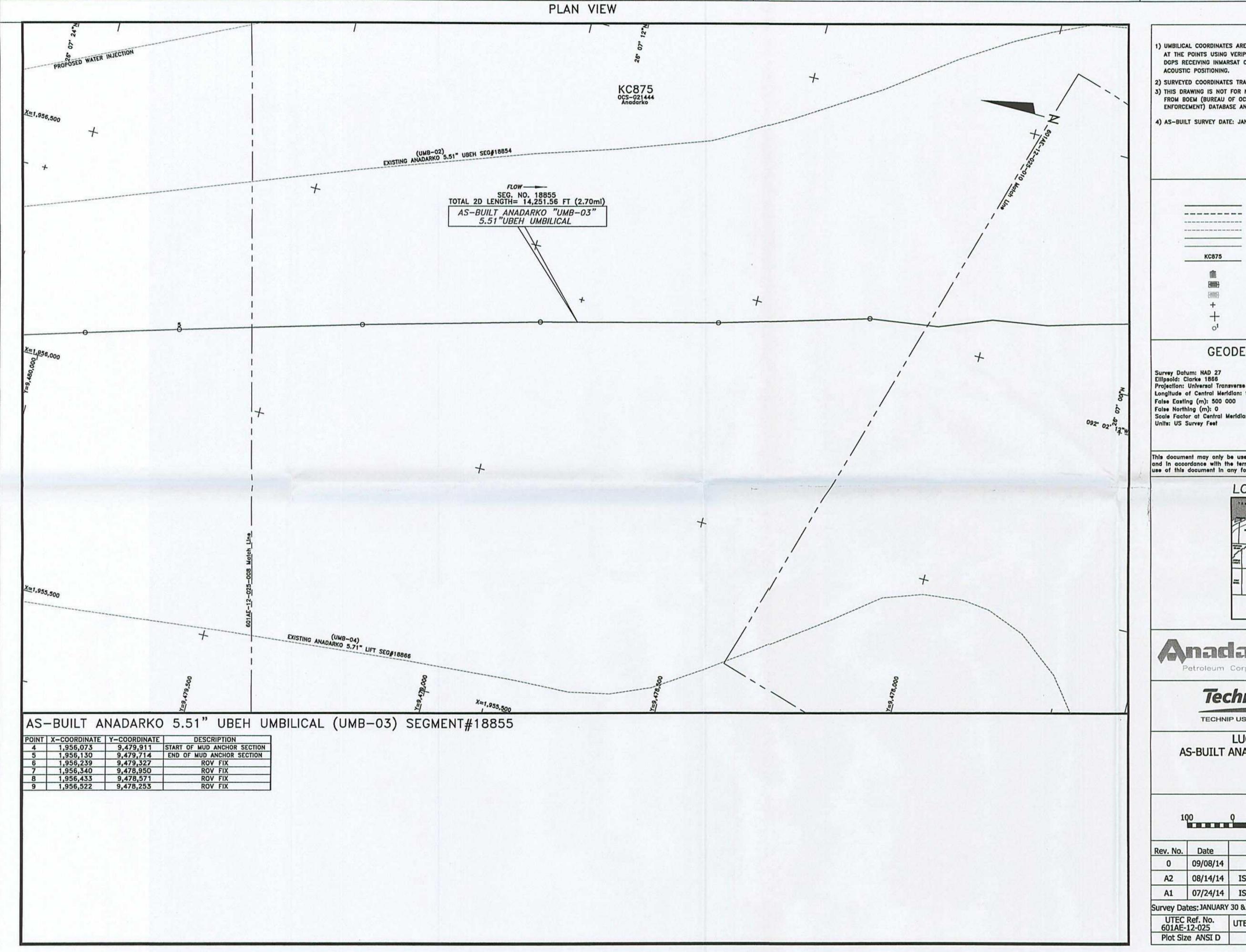
Scale 1" = 100'

US SURVEY FEET

Rev. No.	Date	Comment	Interpr.	Checked	Appr.
0	09/08/14	ISSUED AS FINAL	VR	MG	JL
A2	08/14/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL
A1	07/24/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL

Survey Dates: JANUARY 30 & FEBRUARY16,17, 2014 Survey Vessel: GLOBAL ORION

UTEC Ref. No.	UTEC Drawing No. 601AE-12-025-008	Sheet Of	
601AE-12-025	OTEC DIGHING HOT COLD IN ALL OLD COLD	002	007
Plot Size ANSI D		002	007



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- 4) AS-BUILT SURVEY DATE: JANUARY 30 & FEBRUARY16,17, 2014

LEGEND

AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-03) SEG#18855 CATENARY EXISTING PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS PROPOSED PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS UTEC AS-LAID FLYING LEADS MOORING WIRES LEASE BLOCK BOUNDARIES

PROPOSED STRUCTURES EXISTING STRUCTURES UTEC AS-FOUND/AS-BUILT STRUCTURES

GEOGRAPHICAL TICKS UTM TICKS

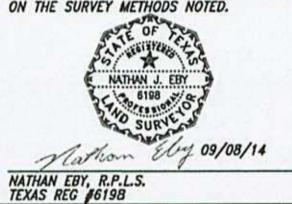
WELLS

GEODESY

KC875

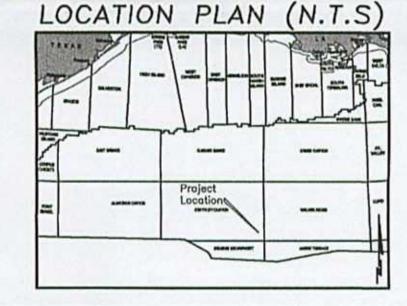
Survey Datum: NAD 27 Ellipsoid: Clarke 1866 Projection: Universal Transverse Mercator ZONE 15N Longitude of Central Meridian: 93°W False Easting (m): 500 000 False Northing (m): 0 Scale Factor at Central Meridian: 0.99950 Units: US Survey Feet

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LUCIUS DEVELOPMENT PROJECT

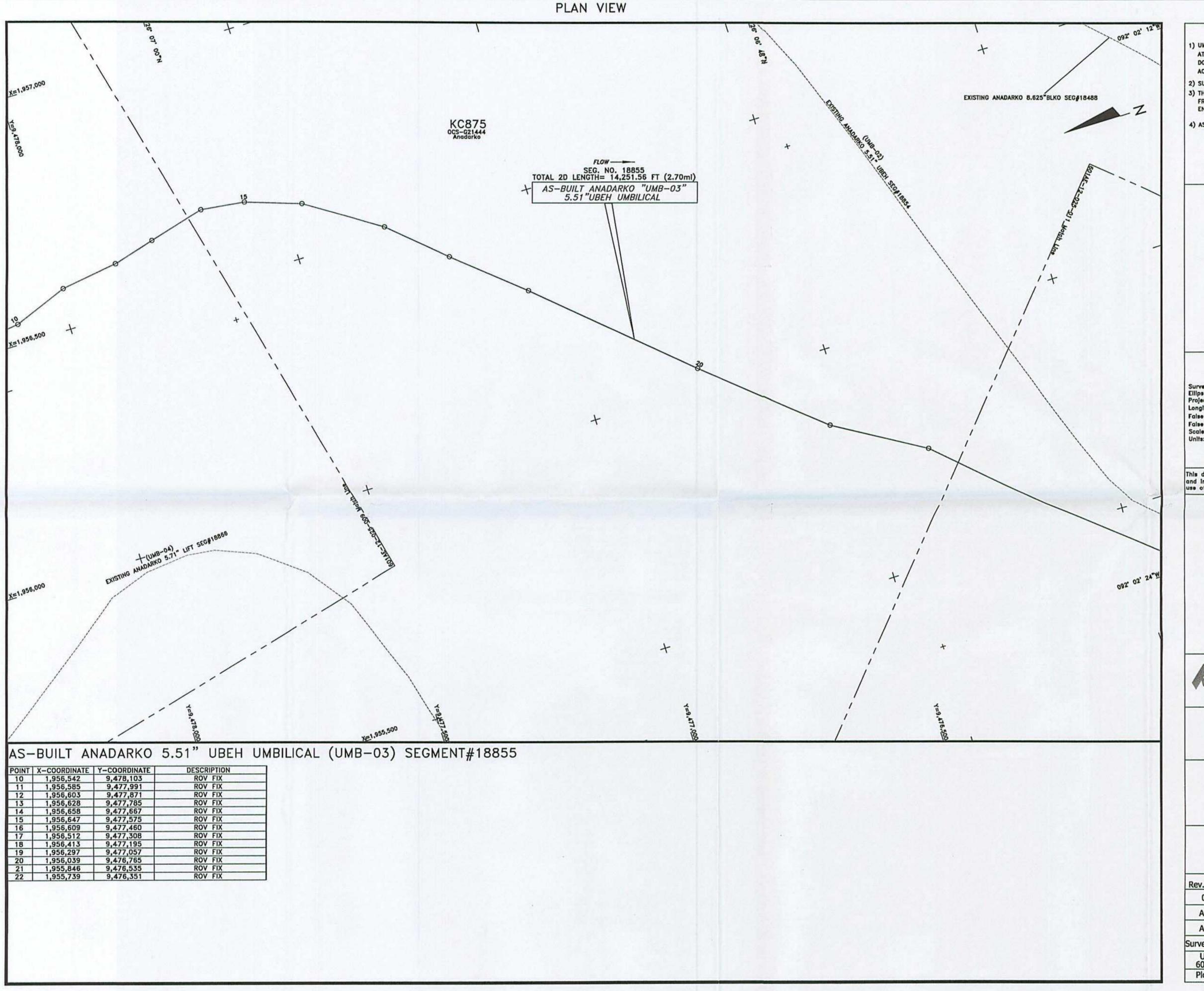
AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-03) SEGMENT#18855 **KEATHLEY CANYON BLOCK 875**

GULF OF MEXICO

Scale 1" = 100' 100 , 200 , 300

US SURVEY FEET						
Rev. No.	Date	Comment	Interpr.	Checked	Appr.	
0	09/08/14	ISSUED AS FINAL	VR	MG	JL	
A2	08/14/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL	
A1	07/24/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL	

Survey Dates: JANUARY 30 & FEBRUARY16,17, 2014 Survey Vessel: GLOBAL ORION UTEC Ref. No. 601AE-12-025 UTEC Drawing No. 601AE-12-025-009



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- 4) AS-BUILT SURVEY DATE: JANUARY 30 & FEBRUARY16,17, 2014

LEGEND

AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-03) SEG#18855

CATENARY

EXISTING PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS

PROPOSED PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS

UTEC AS-LAID FLYING LEADS

MOORING WIRES

LEASE BLOCK BOUNDARIES

PROPOSED STRUCTURES
EXISTING STRUCTURES

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UTM TICKS WELLS

GEODESY

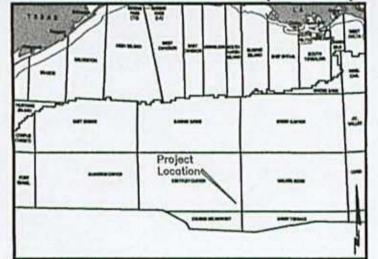
KC875

Survey Datum: NAD 27
Ellipsoid: Clarke 1866
Projection: Universal Transverse Mercator ZONE 15N
Longitude of Central Meridian: 93°W
False Easting (m): 500 000
False Northing (m): 0
Scale Factor at Central Meridian: 0.99960
Units: US Survey Feet

NATHAN EBY, R.P.L.S. TEXAS REG #6198

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LOCATION PLAN (N.T.S)





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LUCIUS DEVELOPMENT PROJECT

AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-03) SEGMENT#18855

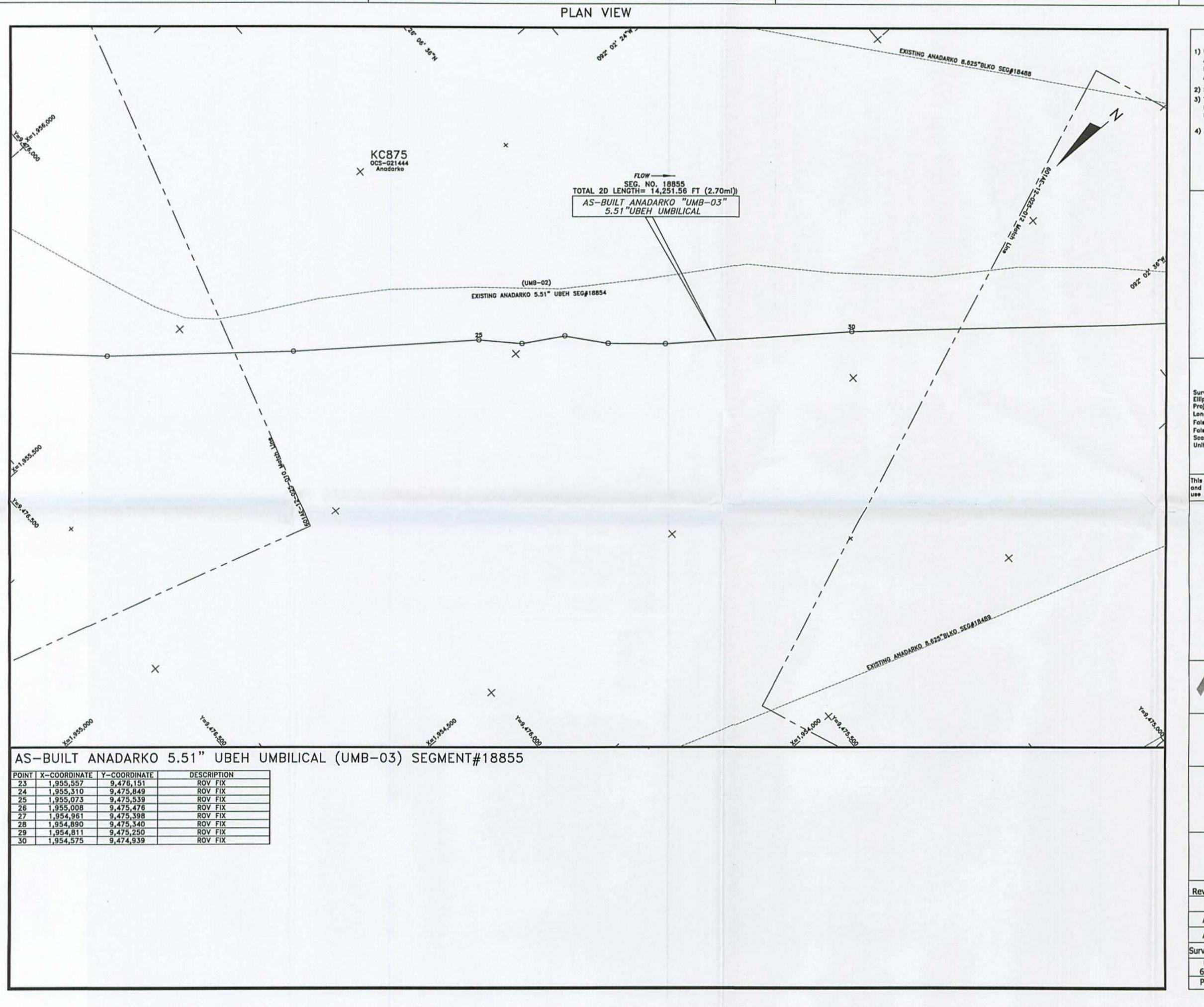
KEATHLEY CANYON BLOCK 875 GULF OF MEXICO

Scale 1" = 100'

100 0 100 200 300 400 500 US SURVEY FEET

Rev. No.	Date	Comment	Interpr.	Checked	Appr.
0	09/08/14	ISSUED AS FINAL	VR	MG	JL
A2	08/14/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL
A1	07/24/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL

Survey Dates: JANUARY 30 & FEBRUARY16,17, 2014 Survey Vessel: GLOBAL ORION



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LEGEND

AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-03) SEG#18855

CATENARY

EXISTING PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS

PROPOSED PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS

UTEC AS-LAID FLYING LEADS

MOORING WIRES

LEASE BLOCK BOUNDARIES

PROPOSED STRUCTURES
EXISTING STRUCTURES

UTEC AS-FOUND/AS-BUILT STRUCTURES
GEOGRAPHICAL TICKS

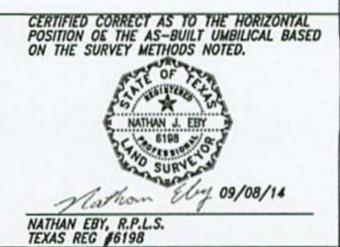
UTM TICKS

WELLS

GEODESY

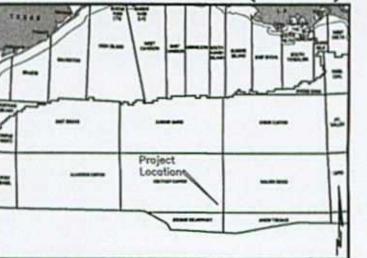
KC875

Survey Datum: NAD 27
Ellipsold: Clarke 1866
Projection: Universal Transverse Mercator ZONE 15N
Longitude of Central Meridian: 93°W
False Easting (m): 500 000
False Northing (m): 0
Scale Factor at Central Meridian: 0.99960
Units: US Survey Feet



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LUCIUS DEVELOPMENT PROJECT
AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-03)
SEGMENT#18855

KEATHLEY CANYON BLOCK 875 GULF OF MEXICO

Scale 1'' = 100'.

100 0 100 200 300 400 500 US SURVEY FEET

 Rev. No.
 Date
 Comment
 Interpr.
 Checked
 Appr.

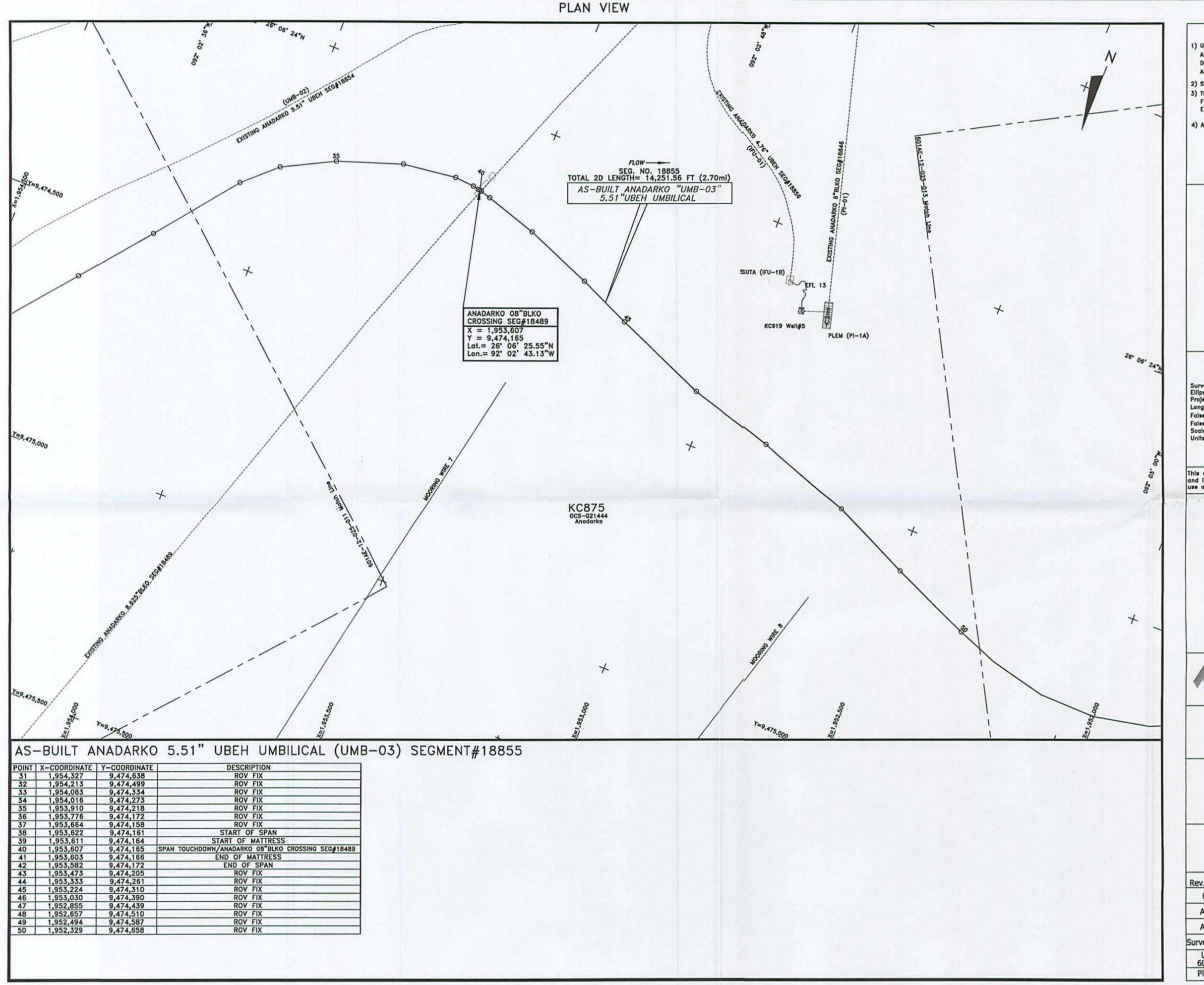
 0
 09/08/14
 ISSUED AS FINAL
 VR
 MG
 JL

 A2
 08/14/14
 ISSUED FOR CLIENT COMMENTS
 VR
 MG
 JL

 A1
 07/24/14
 ISSUED FOR CLIENT COMMENTS
 VR
 MG
 JL

Survey Dates: JANUARY 30 & FEBRUARY16,17, 2014 Survey Vessel: GLOBAL ORION

UTEC Ref. No. 601AE-12-025-011 Sheet Of 005 007



- 1) UMBILICAL COORDINATES ARE THE POSITIONS OF THE R.O.Y. (REMOTELY OPERATED VEHICLE) LOCATED AT THE POINTS USING VERIPOS LD2 ULTRA DGPS RECEIVING SPOTBEAM CORRECTIONS, VERIPOS STANDARD DGPS RECEIVING INMARSAT CORRECTIONS POSITIONING AND SONARDYNE FUSION LBL (LONG BASELINE) ACOUSTIC POSITIONING.
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LEGEND

LEASE BLOCK BOUNDARIES

AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-03) SEG#18855
CATENARY
EXISTING PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS

PROPOSED PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS
UTEC AS-LAID FLYING LEADS
MOORING WIRES

PROPOSED STRUCTURES
EXISTING STRUCTURES
UTEC AS-FOUND/AS-BUILT STRUCTURES

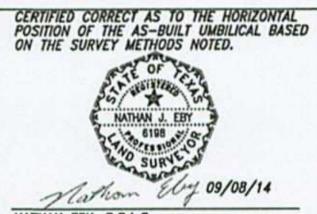
GEOGRAPHICAL TICKS

UTM TICKS
WELLS

GEODESY

KC875

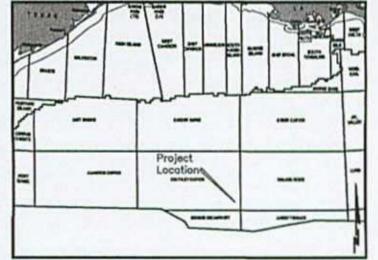
Survey Datum: NAD 27
Ellipsold: Clarke 1866
Projection: Universal Transverse Mercator ZONE 15N
Longitude of Central Meridian: 93°W
False Easting (m): 500 000
False Northing (m): 0
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NATHAN EBY, R.P.L.S. TEXAS REG #6198

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LUCIUS DEVELOPMENT PROJECT

AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-03)
SEGMENT#18855

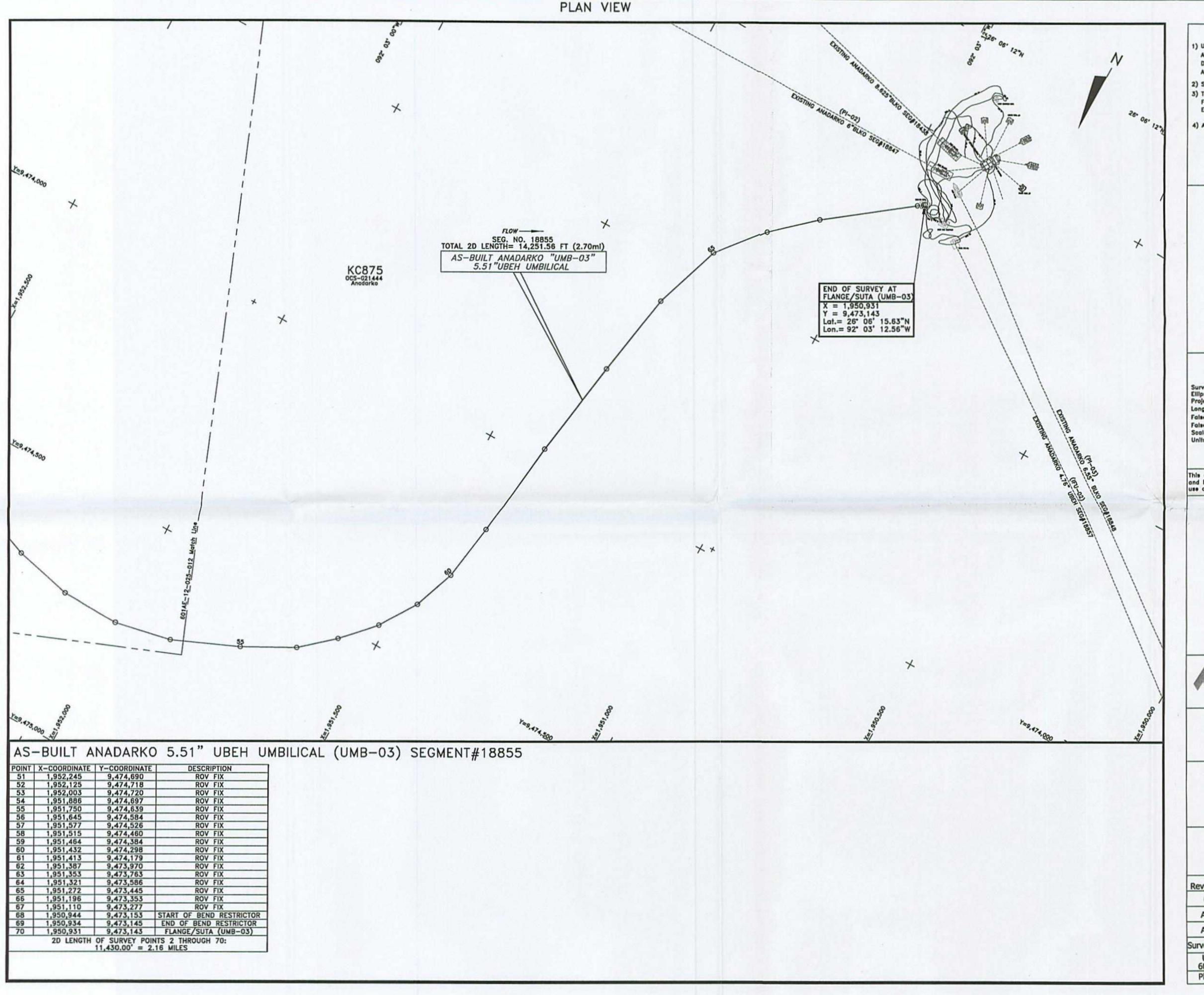
KEATHLEY CANYON BLOCK 875 GULF OF MEXICO

Scale 1'' = 100'

10	00		00	200	300	400	500
			US SURV	EY FEET			
Rev. No.	Date		Comment		Interpr.	Checked	Appr.
0	09/08/14	ISS	ISSUED AS FINAL		VR	MG	JL
A2	08/14/14	ISSUED FO	ISSUED FOR CLIENT COMMENTS		VR	MG	JL

Survey Dates: JANUARY 30 & FEBRUARY16,17, 2014 Survey Vessel: GLOBAL ORION

07/24/14 ISSUED FOR CLIENT COMMENTS



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LEGEND

-----EXISTING PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS

AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-03) SEG#18855 CATENARY

PROPOSED PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS UTEC AS-LAID FLYING LEADS

MOORING WIRES LEASE BLOCK BOUNDARIES

PROPOSED STRUCTURES EXISTING STRUCTURES

UTEC AS-FOUND/AS-BUILT STRUCTURES

GEOGRAPHICAL TICKS

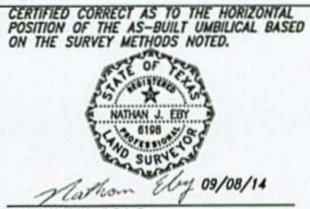
UTM TICKS

WELLS

Survey Datum: NAD 27 Ellipsold: Clarke 1866 Projection: Universal Transverse Mercator ZONE 15N Longitude of Central Meridian: 93'W False Easting (m): 500 000 False Northing (m): 0 Scale Factor at Central Meridian: 0.99960 Units: US Survey Feet

GEODESY

KC875



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LUCIUS DEVELOPMENT PROJECT AS-BUILT ANADARKO 5.51" UBEH UMBILICAL (UMB-03) SEGMENT#18855

KEATHLEY CANYON BLOCK 875 GULF OF MEXICO Scale 1" = 100'

US SURVEY FEET

v. No.	Date	Comment	Interpr.	Checked	Appr.				
0	09/08/14	ISSUED AS FINAL	VR	MG	JL				
A2	08/14/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL				
A1	07/24/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL				

Survey Dates: JANUARY 30 & FEBRUARY16,17, 2014 Survey Vessel: GLOBAL ORION

UTEC Ref. No. 601AE-12-025 UTEC Drawing No. 601AE-12-025-013 . Plot Size ANSI D