

SURVEYOR'S REPORT

Specific Purpose Survey of the Monitoring Wells

OSF-64

Osceola County, Florida

South Florida Water Management District's

Purchase Order number PC P602214

Keith and Schnars project number 16434.07,

Task 22003

Report Date: August 15, 2006

Submittal: First

Prepared for:

South Florida Water Management District

Prepared by:



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Lakeland, FL 33811

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Licensed Business (L.B.) 1337

SURVEYOR'S REPORT

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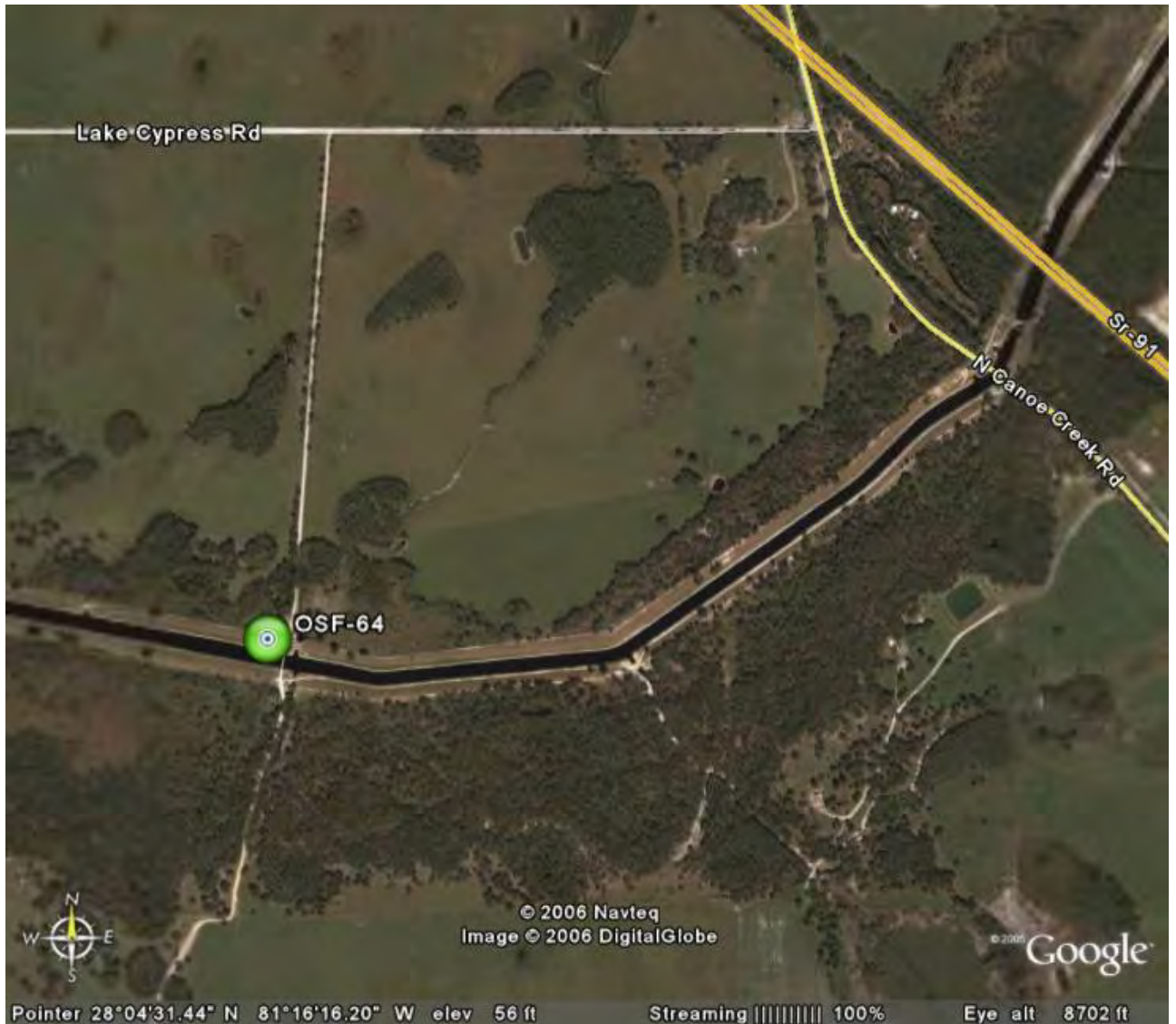
SURVEYOR'S REPORT

PURPOSE

To establish vertical data (NAVD 1988 and NGVD 1929) on the Monitoring Wells at the structure.

LOCATION OF PROJECT

The project is located in Osceola County.



SURVEYOR'S REPORT

ITEMS DELIVERED TO THE DISTRICT

1. Electronic copy of field notes.
2. Electronic copy of all computation sheets.
3. CORPSMET 95 file.
4. Site photographs.
5. Surveyor's Report.

DATUM FOR THE PROJECT


The vertical datum for the project is North American Datum of 1988 (NAVD '88). National Geodetic Survey vertical control monuments with published NAVD '88 elevations were used as the basis for this survey. The National Geodetic Vertical Datum of 1929 (NGVD '29) shown were computed using CORPSCON version 6.0 program.

LEVELING METHODS

Benchmark OSF-64 was constructed at the site. The elevations were established from Benchmark G 506 using a Topcon AT-F2 conventional level and three-wire observation method.

SURVEYOR'S REPORT

VERTICAL CONTROL

BM G 506		Elevation:	NAVD 1988	56.24'	NGVD 1929	
Found in National Geodetic Survey Database	Latitude		28°04'00" (Scaled)			
State/County FL/Osceola	Longitude		81°16'48" (Scaled)			
USGS QUAD Cypress Lake (1987)						
Horiz. Order (Preliminary) Class (Preliminary)		DESCRIBED BY FL DEPT OF ENV PRO 2001 (JLM)				
		<p>THE MARK IS ABOUT 28.5 MI (45.9 KM) EAST-NORTHWEST OF LAKE WALES, IN SECTION 12, TOWNSHIP 28 SOUTH, RANGE 30 EAST. TO REACH THE MARK FROM THE INTERSECTION OF STATE ROAD 27 AND STATE ROAD 60 IN LAKE WALES, GO EAST-SOUTHEAST ON STATE ROAD 60 FOR 7.3 MI (11.7 KM) TO THE JUNCTION OF MAMMOTH GROVE ROAD ON THE LEFT, TURN LEFT ON MAMMOTH GROVE ROAD AND GO NORTH FOR 2.05 MI (3.30 KM) TO THE JUNCTION OF CAMP MACK ROAD ON THE RIGHT, TURN RIGHT ON CAMP MACK ROAD AND GO NORTH FOR 0.25 MI (0.40 KM) TO A CURVE EAST, CONTINUE EAST ON CAMP MACK ROAD FOR 2.3 MI (3.7 KM) TO THE JUNCTION OF BARNEY KEEN ROAD (BOY SCOUT ROAD) ON THE RIGHT, CONTINUE NORTHEASTERLY ON CAMP MACK ROAD FOR 5.35 MI (8.61 KM) TO THE ENTRANCE TO LAKE KISSIMMEE STATE PARK ON THE RIGHT, CONTINUE NORTH ON CAMP MACK ROAD FOR 0.1 MI (0.2 KM) TO THE JUNCTION OF A SAND ROAD ON THE RIGHT, TURN RIGHT ON THE SAND ROAD AND GO NORTHEAST FOR 75.0 FT (22.9 M) TO A LOCKED GATE, CONTINUE NORTHEAST ON THE SAND ROAD FOR 0.35 MI (0.56 KM) TO A Y-JUNCTION, CONTINUE NORTHEAST ON THE SAND ROAD FOR 0.25 MI (0.40 KM) TO THE SOUTHWEST END OF A BRIDGE (SPANNING KISSIMMEE RIVER CANAL), CONTINUE NORTHEAST ON THE SAND ROAD FOR 3.2 MI (5.1 KM) TO A LOCKED GATE AND A 90 DEGREE TURN EAST, CONTINUE EAST ON THE SAND ROAD FOR 0.2 MI (0.3 KM) TO THE T-JUNCTION OF A SAND ROAD AND A POWER LINE, TURN LEFT ON THE SAND ROAD AND GO NORTHEAST FOR 75.0 FT (22.9 M) TO A LOCKED GATE, CONTINUE NORTHEAST ON THE SAND ROAD FOR 7.0 MI (11.3 KM) TO THE MARK ON THE RIGHT, SET IN THE TOP OF A ROUND CONCRETE MONUMENT FLUSH WITH THE GROUND AND LEVEL WITH THE SAND ROAD. LOCATED 540.0 FT (164.6 M) NORTH OF A FENCE LEADING WEST THEN SOUTHWEST, 74.5 FT (22.7 M) EAST OF THE APPROXIMATE CENTERLINE OF THE SAND ROAD, 1.5 FT (0.5 M) WEST OF A BARBWIRE FENCE AND 1.2 FT (0.4 M) WEST OF A CARSONITE WITNESS POST.</p> <p>NOTE FOR KEY CONTACT SOUTH FLORIDA WATER MANAGEMENT DISTRICT, PHONE NUMBER 561-686-8800.</p>				

SURVEYOR'S REPORT

PROJECT RESULTS

Monitoring Well (GW-1)	Monitoring Well (GW-2)
<p>Monitoring Well OSF-64: Reference mark: <u>Set mark on S. side PVC pipe</u> <u>With initials K&S.</u></p> <p>New Reference Mark El. <u>64.831'</u> (NGVD '29) <u>(Wrote -1.129' to NAVD 1988).</u></p> <p>Initials: <u>K&S</u> <u>B.M., R.F.</u></p> <p>Date: <u>7/26/06</u></p> <p>written at the mark: El. <u>65.13'</u> Date: <u>01/09/04</u> By: <u>None</u></p> <p>Reference Mark location: <u>Top of PVC Pipe</u></p>	<p>Monitoring Well OSF-64: Reference mark: <u>Set mark on S. side PVC pipe</u> <u>With initials K&S.</u></p> <p>New Reference Mark El. <u>64.611'</u> (NGVD '29) <u>(Wrote -1.129' TO NAVD 1988).</u></p> <p>Initials: <u>K&S</u> <u>B.M., R.F.</u></p> <p>Date: <u>7/26/06</u></p> <p>written at the mark: El. <u>64.89'</u> Date: <u>01/09/04</u> By: <u>None</u></p> <p>Reference Mark location: <u>Top of PVC Pipe</u></p>

SURVEYOR'S REPORT

PROJECT RESULTS

Monitoring Well (GW-3)

Monitoring Well OSF-64:

Reference mark:

Set mark on N. side PVC pipe
With initials K&S.

New Reference

Mark El. **63.000'**

(NGVD '29)

(Wrote -1.129' to NAVD 1988).

Initials:

K&S

B.M., R.F.

Date:

7/26/06

written at the mark:

El. **63.805'**

Date: **01/09/04**

By: **None**

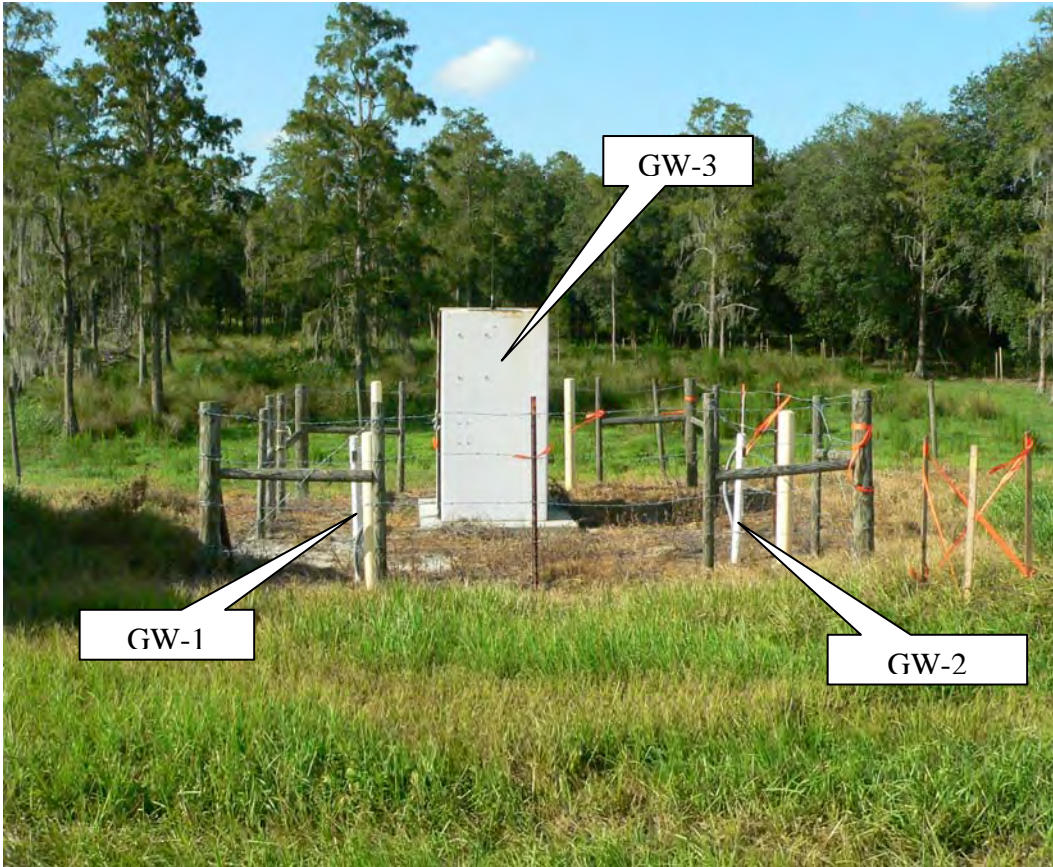
Reference Mark location:

Top of the inside rim of PVC Pipe

SURVEYOR'S REPORT

PROJECT PHOTO

OSF-64



SURVEYOR'S REPORT

PROJECT PHOTO

OSF-64 (GW-1)



SURVEYOR'S REPORT

PROJECT PHOTO

OSF-64 (GW-2)



SURVEYOR'S REPORT

PROJECT PHOTO

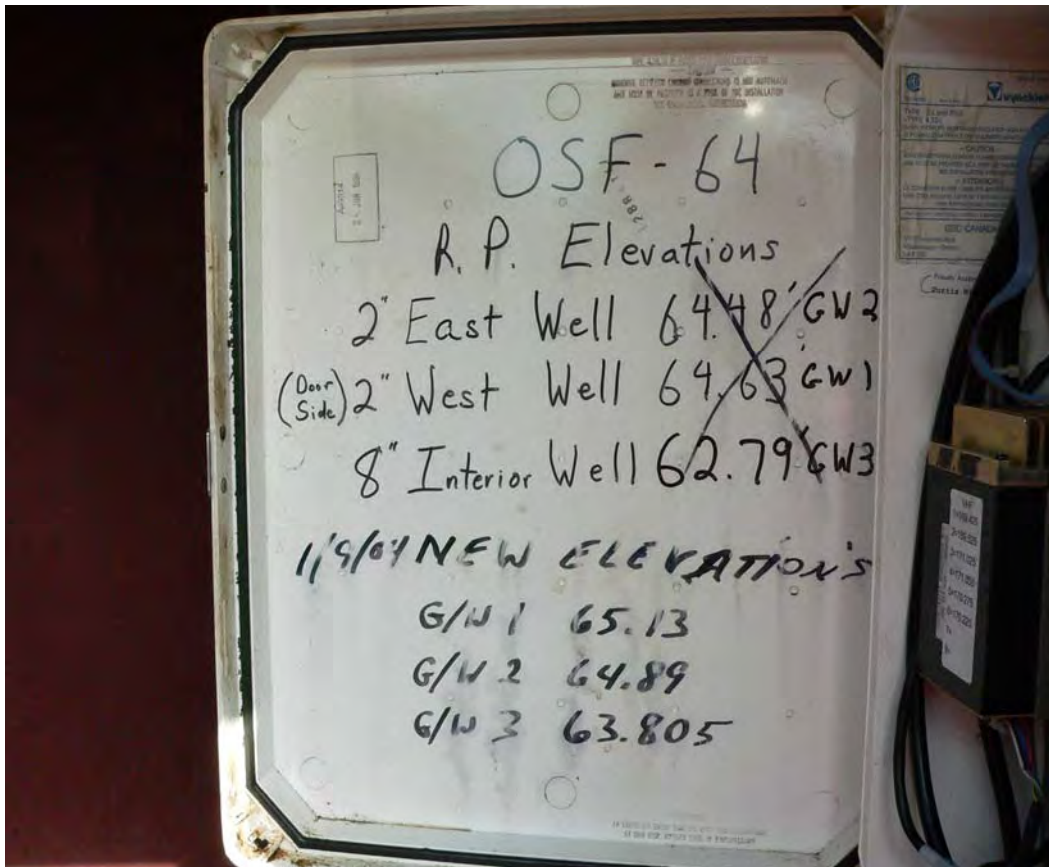
OSF-64 (GW-3)



SURVEYOR'S REPORT

PROJECT PHOTO

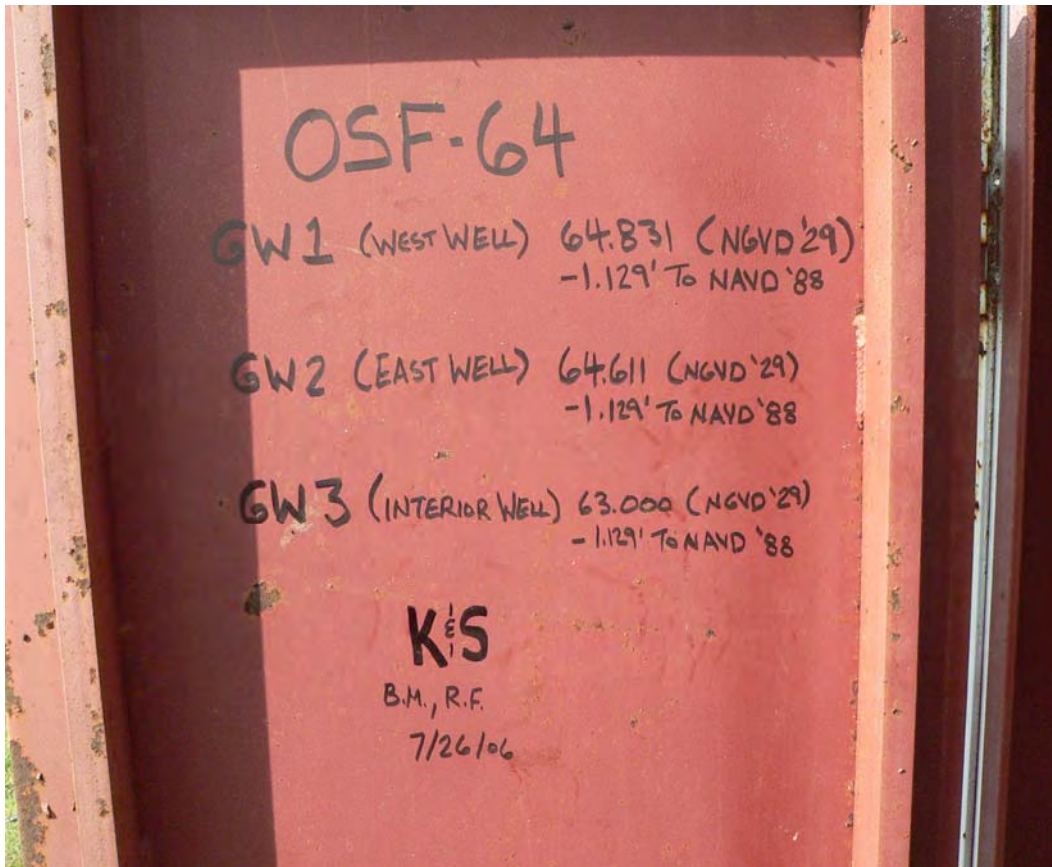
OSF-64



SURVEYOR'S REPORT

PROJECT PHOTO

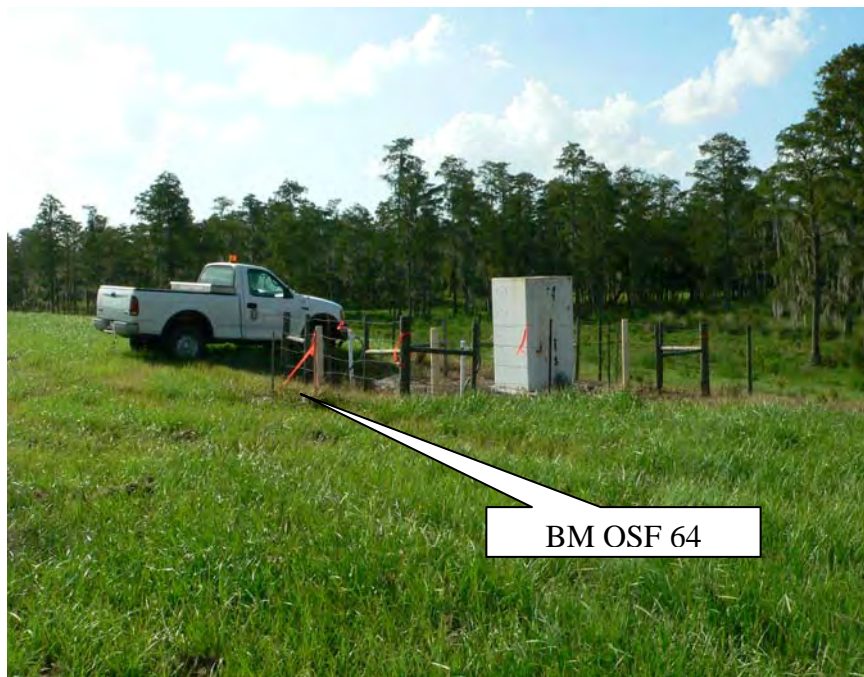
OSF-64



SURVEYOR'S REPORT

PROJECT PHOTO

OSF-64



SURVEYOR'S REPORT

Comments:

Party Chief: T. Coon Field Book: **1161** Page **30-32**
Bench Mark: "G 506" El. 56.24', Vertical Datum: NAVD1988
Offset: 1.135' SFWMD VALUE (add value to convert to NGVD 1929)
Offset: 1.135' NGS VALUE (add this value to convert to NGVD 1929)
NAVD 88 - North American Vertical Datum of 1988
NGVD29 -National Geodetic Vertical Datum of 1929
NAD 83-99 (Horizontal Datum) North American Datum
NGS- National Geodetic Survey
SFWMD- South Florida Water Management District
PVC- Polyvinyl Chloride

SURVEYOR'S CERTIFICATION

I hereby certify that this Specific Purpose Survey meets applicable portions of the Minimum Technical Standards set forth by the Florida Board of Professional Surveyors and Mappers in Chapter 61-G17, Florida Administrative Code. This report is prepared for the sole and specific use of the South Florida Water Management District and is not assignable.

KEITH and SCHNARS, PA.
L.B. number 1337

By:

Date of Survey
July 26, 2006

Kenneth T. Glass, PSM
Professional Surveyor and Mapper
State of Florida
Certificate No. 5713

SOB # 16434.07
DATE: 07-06-06

CONT.

BM	BS	MEAN	HI	FS	MEAN
TP 4	7.65	7.537	23'	7.26	6.023
	2.54			6.02	
	7.42			4.79	
	22.61			18.07	
BM OSF 64	4.80	3.803	199'	5.58	5.460
	3.80			5.46	
	2.81			5.34	
	11.41			16.38	
TP 5	7.27	6.860	28'	7.94	6.950
	6.86			6.95	
	6.45			5.96	
	20.58			20.85	
H-506	4.16	3.163	199'	4.74	4.347
	3.16			4.35	
	2.17			3.95	
	9.49			13.04	
TP 6	7.34	6.100	282'	7.73	6.730
	6.10			6.73	
	4.86			5.73	
	18.30			20.19	
TP 7	7.40	6.170	272'	8.16	6.920
	6.17			6.92	
	4.94			5.68	
	18.51			20.76	

693

443

ELEV.	ADJ. ELEV.	REMARKS
58.688		SET HUB & TAC BY WELL # OSF 64
60.765	60.772	RECOVERED CM W/ BRASS DISC. S. FLA. WATER MGT. DISTRICT
60.131	60.140	SET HUB & TAC JUST N. OF WOODEN BRIDGE ON EASTERN BANK OF RIVER
+0.009		HQS DATA SHEET H 506 RECOVERED CM W/ BRASS DISC. STAMPE H-506 2001 FLDEP (LOWD) NAVD 88 EL = 60.14 REVISHEED
$2559 - 5280 = 0.485$ MILES $0.485 \times 0.03 = 0.02$ ALLOWABLE ERR		
		SET HUB & TAC ON NORTHERN SIDE OF SAND ROAD
		" "

JOB # 16434.07
DATE: 07-06-06

CONT.

BM	BS	MEAN	HI	FS	MEAN
TP 8	5.82	5.040	156'	6.60	5.373
	5.04			5.38	
	4.26			4.14	
	15.12			16.12	
	849				
4-506				6.13	5.350
				5.35	
				4.57	
				16.05	
	850				

ELEV.	ADS. ELEV.	REMARKS
56.533		SET HUB & TAIL ON NORTHERN SIDE OF SAND ROAD
		NGS DATA SHEET G506 RECOVERED CM SEE Pg. # 30 FOR DESCRIPTION NAVD 88 EL. = 56.24 PUBLISHED
56.223	56.240	
+ 0.017		

$1699 = 5280 = 0.322 \text{ MILES}$
 $\sqrt{0.322 \times 0.03} = 0.017 \text{ ALLOWABLE ERR.}$

SAME CREW

7/26/2000

OSF-64

BM	BS	MEAN	HE	FS	MEAN
	4.40				
BM OSF 64	4.32	4.320	65.092		
	<u>4.18</u>				
	12.90				
GW-2				1.71	
WELL PIPE 1				1.61	20'
				<u>1.51</u>	
				4.83	
GW-1				1.40	
WELL PIPE 2				1.39	14'
				<u>1.32</u>	
				4.17	
GW-3	3.05			3.29	
WELL PIPE 3	3.58	3.580	65.451	3.22	14'
	<u>3.51</u>			3.15	
	10.74			9.60	
WELL PIPE 2				1.83	15'
				1.75	
				<u>1.68</u>	
				5.26	
WELL PIPE 1				2.08	23'
				1.97	
				<u>1.86</u>	
				5.91	
BM OSF 64				4.82	29'
				4.68	
				<u>4.53</u>	
				14.03	4.077

ELEV.	ADJ. ELEV.	REMARKS
60.772	60.772	POURED CONC. MOD. W/ S.F.W.M.D. BRASS DISK NAVD 88
63.482		2" PVC PIPE SE OF ABOVE GROUND VAULT NGVD '29 = 64.611 - 1.129 TO NAVD 88
63.702		2" PVC PIPE SW OF ABOVE GROUND VAULT NGVD '29 = 64.831 - 1.129 TO NAVD 88
61.872	61.871	8" PVC PIPE IN ABOVE GROUND VAULT NGVD '29 63.000 - 1.129 TO NAVD 88
63.698		2" PVC PIPE SW OF ABOVE GROUND VAULT
63.481		2" PVC PIPE SE OF ABOVE GROUND VAULT
60.775	60.772	POURED CONC. MOD. W/ S.F.W.M.D. BRASS DISK + 0.003

Identification Information:

Citation:

Citation Information:

Kenneth T. Glass
Keith & Schnars P.A.

Originator: Kenneth T. Glass, P. S. M. (ed.)
 Publication_Date: 20060726
 Publication_Time: Unknown
 Title: S. F. W. M. D. Monitoring Well
 Edition: OSF-64
 Series_Information:
 Publication_Information:
 Publication_Place: Not Published
 Publisher: None
 Online_Linkage: kglass@keithandschnars.com
 Larger_Work_Citation:
 Citation_Information:
 Series_Information:
 Publication_Information:

Description:

Abstract:

South Florida Water Management District
 Structure OSF-64

Purpose:

To establish reference elevations in NAVD 1988 and
 NGVD 1929 datum at the Monitoring Well(s).

Purpose

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 20060726

Range_of_Dates/Times:

Multiple_Dates/Times:

Currentness_Reference: Publication Date

Survey Date

Status:

Progress: Complete

Maintenance_and_Update_Frequency: Unknown

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 81°16'47"

East_Bounding_Coordinate: 81°16'47"

North_Bounding_Coordinate: 28°04'21"

South_Bounding_Coordinate: 28°04'21"

Keywords:

Theme:

Theme_Keyword_Thesaurus: Specific Purpose Survey
 Theme_Keyword: Monitoring Well(s)

Place:

Place_Keyword_Thesaurus: Osceola County

Place_Keyword: S. F. W. M. D. Monitoring Well OSF-64

Place_Keyword: SEC. 01 - T28S - R30E

Stratum:

Temporal:

Access_Constraints: Key needed to gain access to Monitoring Wells.

Use_Constraints: Call South Florida Water Management District for key.

Point_of_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Howard J. Ehmke

Contact_Organization: South Florida Water Management

Howard Ehmke

SFWMD

District

Contact_Organization_Primary:

Contact_Position: P. S. M.

Contact_Address:

Address_Type: mailing and physical address

Address:

Acceler 8

Suite 150

2301 Centerpark West Drive

City: West Palm Beach

State_or_Province: Florida

Postal_Code: 33409

Country: USA

OSF 64.gen
Contact_Voice_Telephone: (561) 242-5520 ext 4064
Contact_Electronic_Mail_Address: hehmke@sfwmd.gov
Hours_of_Service: 8:00 am to 5:00 pm EST

Security_Information:
Cross_Reference:

Citation_Information:
Series_Information:
Publication_Information:

Data_Quality_Information:

Attribute_Accuracy:
Attribute_Accuracy_Report:

Equipment Used

The horizontal location of the benchmark was taken from a hand held G. P. S. unit. The vertical data was collected using a Topcon AT-F2 Level. Coordinates are based on the Florida State Plane Coordinate System, East Zone, NAD 83/90. Elevations are based on NAVD 1988 with an offset supplied to convert to NGVD 1929.

Logical_Consistency_Report:

Vertical data on the monitoring well was established using the site benchmark.

Completeness_Report:

Project Results

64.831' (NGVD 1929) OSF-64 Well (GW-1) .
Offset written at wells (-) 1.129' to NAVD 1988.
64.611' (NGVD 1929) OSF-64 Well (GW-2) .
Offset written at wells (-) 1.129' to NAVD 1988.
63.000' (NGVD 1929) OSF-64 Well (GW-3) .
Offset written at wells (-) 1.129' to NAVD 1988.
OSF-64 2006 was the site benchmark used for this survey. NAVD 1988 elevation 60.772'

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal

Horizontal_Positional_Accuracy_Report:

The horizontal position of the benchmark was established using a hand held GPS.

Quantitative_Horizontal_Positional_Accuracy_Assessment:

Horizontal_Positional_Accuracy_Value: Lat. 28°04' 21" Long.

81°16' 47"

Horizontal_Positional_Accuracy_Explanation: Value derived

by hand-held GPS unit.

Vertical_Positional_Accuracy:

Vertical_Positional_Accuracy_Report:

The onsite benchmark was used to establish the elevations on the monitoring well(s) in this report.

Quantitative_Vertical_Positional_Accuracy_Assessment:

Vertical_Positional_Accuracy_Value: 0.009 ft. NAVD88

Vertical_Positional_Accuracy_Explanation: Better than

0.03ft. x sq. root of miles of the level loop.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Series_Information:

Publication_Information:

Larger_Work_Citation:

Citation_Information:

Series_Information:

Publication_Information:

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Range_of_Dates/Times:

Multiple_Dates/Times:

Process_Step:

Process_Description:

Level Line

Differential leveling was performed using a Topcon AT-F2 level. The onsite benchmark OSF64 2006 was used to determine the monitoring well elevation. Elevations were written at the wells in NGVD 1929 with an offset provided to convert the elevations to NAVD 1988.

Process_Date: 20060726

OSF 64. gen

Process_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Organization_Primary:
Contact_Address:

Spatial_Data_Organization_Information:
Spatial_Reference_Information:
Horizontal_Coordinate_System_Definition:
Geographic:
Latitude_Resolution: 28°04' 21"
Longitude_Resolution: 81°16' 47"
Geographic_Coordinate_Units: Degrees, minutes, and decimal

seconds

Geodetic_Model:
Vertical_Coordinate_System_Definition:
Altitude_System_Definition:
Depth_System_Definition:

Entity_and_Attribute_Information:
Detailed_Description:
Entity_Type:
Attribute:
Attribute_Domain_Values:
Attribute_Value_Accuracy_Information:

Overview_Description:

Distribution_Information:

Distributor:
Contact_Information:
Contact_Person_Primary:
Contact_Organization_Primary:
Contact_Organization: Keith and Schnars, P. A.
Contact_Person: Kenneth T. Glass, P. S. M.
Contact_Position: Director of Surveying and Mapping Lakeland
Contact_Address:
Address_Type: mailing and physical address
Address: 2525 Drane Field Rd., Suite 7
City: Lakeland
State_or_Province: Florida
Postal_Code: 33811
Country: Polk
Contact_Voice_Telephone: (863)-646-4771
Contact_Facsimile_Telephone: (863)-646-3378
Contact_Electronic_Mail_Address: kglass@keithandschnars.com
Hours_of_Service: 8:00-5:00 est.

Distribution_Liability: None

Standard_Order_Process:

Digital_Form:
Digital_Transfer_Information:
Digital_Transfer_Option:
Online_Option:
Computer_Contact_Information:
Network_Address:
Dialog_Instructions:
Offline_Option:
Recording_Capacity:

Availability_Time_Period:

Time_Period_Information:
Single_Date/Time:
Range_of_Dates/Times:
Multiple_Dates/Times:

Metadata_Reference_Information:

Metadata_Date: 20060809

Metadata_Contact:

Contact_Information:
Contact_Person_Primary:
Contact_Person: Kenneth T. Glass, P. S. M.
Contact_Organization: Keith and Schnars, P. A.
Contact_Organization_Primary:
Contact_Position: Director of Surveying and Mapping Lakeland
Contact_Address:
Address_Type: mailing and physical address

OSF 64.gen
Address: 2525 Drane Field Rd., Suite 7
City: Lakeland
State_or_Province: FL
Postal_Code: 33811
Country: USA
Contact_Voice_Telephone: (863) 646-4771
Contact_Facsimile_Telephone: (863) 646-3378
Contact_Electronic_Mail_Address: kglass@keithandschnars.com
Hours_of_Service: 8:00 am to 5:00 pm EST
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata
Metadata_Standard_Version: 19940608
Metadata_Security_Information:



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 4/01

COUNTY OSCEOLA		PROJECT		DESIGNATION Structure OSF-64	
SECTION_1		TOWNSHIP <u>28</u> SOUTH		RANGE <u>30</u> EAST	
GEOGRAPHIC INDEX OF QUAD					
Established by <u>KEITH AND SCHNARS</u>			NAME OF QUADRANGLE		
Recovered by			<u>CYPRESS LAKE</u>		
SET CLASS "C" MONUMENT WITH SFWMD BRASS DISK.					
SURVEYOR <u>T. COON (Keith and Schnars)</u>			FIELD BOOK, 1161, pgs. 30-32		
DATE <u>07/06/2006</u>					
HORIZONTAL DATUM: 1983 with 1999 correction, ZONE East					
VERTICAL DATUM: NGVD 1929 and NAVD 1988					
CONTROL ACCURACY: HORIZONTAL HAND-HELD GPS, 3 rd Order VERTICAL					
STATE PLANE COORDINATES	X = 565962	Y = 1359166	EL. (NGVD 1929) 61.901'		
			EL. (NAVD 1988) 60.772'		
LATITUDE <u>28° 04' 21"</u>		LONGITUDE <u>81° 16' 47"</u>			
DESCRIPTION					
South Florida Water Management District brass disk set in concrete monument stamped OSF 64 / 2006					
The benchmark is located 11.7 miles south of Saint Cloud.					
To reach the mark from the intersection of U.S. 192 and Vermont Ave. in Saint Cloud travel south along Vermont Ave. a distance of 11.7 miles (Vermont Ave. will turn into Canoe Creek Rd.) to Lake Cypress Rd.					
Then travel West along Lake Cypress Rd. for a distance of 0.7 miles to a dirt road on the south side of the road.					
Then travel South along the dirt road a distance of 0.8 miles to a metal gate on the west side of the road					
Just before the Bridge crossing the canal. The mark is on the west side of the road, 140' northwest of the gate,					
50' south east of the southeast corner of the well vault and 5 ' south of the southeast corner of a 4' barbed					
Wire fence Around the well.					
Notable Land marks:					

SKETCH



The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.35

1 National Geodetic Survey, Retrieval Date = APRIL 28, 2004

AJ6648 *****

AJ6648 DESIGNATION - G 506
 AJ6648 PID - AJ6648
 AJ6648 STATE/COUNTY- FL/OSCEOLA
 AJ6648 USGS QUAD - CYPRESS LAKE (1987)

AJ6648
 AJ6648 *CURRENT SURVEY CONTROL

AJ6648*	NAD 83(1986)-	28 04 00.	(N)	081 16 48.	(W)	SCALED
AJ6648*	NAVD 88	-	17.143	(meters)	56.24	(feet) ADJUSTED

AJ6648
 AJ6648 GEOID HEIGHT- -27.62 (meters) GEOID03
 AJ6648 DYNAMIC HT - 17.117 (meters) 56.16 (feet) COMP
 AJ6648 MODELED GRAV- 979,150.0 (mgal) NAVD 88

AJ6648 VERT ORDER - SECOND CLASS I

AJ6648 The horizontal coordinates were scaled from a topographic map and have
 AJ6648 an estimated accuracy of +/- 6 seconds.

AJ6648 The orthometric height was determined by differential leveling
 AJ6648 and adjusted by the National Geodetic Survey in April 2004..

AJ6648 The geoid height was determined by GEOID03.

AJ6648 The dynamic height is computed by dividing the NAVD 88
 AJ6648 geopotential number by the normal gravity value computed on the
 AJ6648 Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AJ6648 degrees latitude (g = 980.6199 gals.).

AJ6648 The modeled gravity was interpolated from observed gravity values.

	North	East	Units	Estimated Accuracy
AJ6648; SPC FL E -	413,630.	172,480.	MT	(+/- 180 meters Scaled)

AJ6648 SUPERSEDED SURVEY CONTROL

AJ6648 No superseded survey control is available for this station.

AJ6648 U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMM724046(NAD 83)

AJ6648 MARKER: DD = SURVEY DISK

AJ6648 SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

AJ6648 STAMPING: G 506 2001

AJ6648 MARK LOGO: FLDEP

AJ6648 MAGNETIC: N = NO MAGNETIC MATERIAL

AJ6648 STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

AJ6648+STABILITY: SURFACE MOTION

AJ6648 SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AJ6648+SATELLITE: SATELLITE OBSERVATIONS - 2001

HISTORY	- Date	Condition	Report By
AJ6648 HISTORY	- 2001	MONUMENTED	FLDEP

AJ6648 STATION DESCRIPTION

AJ6648 DESCRIBED BY FL DEPT OF ENV PRO 2001 (JLM)
 AJ6648 THE MARK IS ABOUT 28.5 MI (45.9 KM) EAST-NORTHWEST OF LAKE WALES, IN
 AJ6648 SECTION 12, TOWNSHIP 28 SOUTH, RANGE 30 EAST. TO REACH THE MARK FROM
 AJ6648 THE INTERSECTION OF STATE ROAD 27 AND STATE ROAD 60 IN LAKE WALES, GO
 AJ6648 EAST-SOUTHEAST ON STATE ROAD 60 FOR 7.3 MI (11.7 KM) TO THE JUNCTION
 AJ6648 OF MAMMOTH GROVE ROAD ON THE LEFT, TURN LEFT ON MAMMOTH GROVE ROAD AND
 AJ6648 GO NORTH FOR 2.05 MI (3.30 KM) TO THE JUNCTION OF CAMP MACK ROAD ON
 AJ6648 THE RIGHT, TURN RIGHT ON CAMP MACK ROAD AND GO NORTH FOR 0.25 MI (0.40
 AJ6648 KM) TO A CURVE EAST, CONTINUE EAST ON CAMP MACK ROAD FOR 2.3 MI (3.7
 AJ6648 KM) TO THE JUNCTION OF BARNEY KEEN ROAD (BOY SCOUT ROAD) ON THE RIGHT,
 AJ6648 CONTINUE NORTHEASTERLY ON CAMP MACK ROAD FOR 5.35 MI (8.61 KM) TO THE
 AJ6648 ENTRANCE TO LAKE KISSIMMEE STATE PARK ON THE RIGHT, CONTINUE NORTH ON



DATASHEETS

AJ6648 'CAMP MACK ROAD FOR 0.1 MI (0.2 KM) TO THE JUNCTION OF A SAND ROAD ON
AJ6648 'THE RIGHT, TURN RIGHT ON THE SAND ROAD AND GO NORTHEAST FOR 75.0 FT
AJ6648 '(22.9 M) TO A LOCKED GATE, CONTINUE NORTHEAST ON THE SAND ROAD FOR
AJ6648 '0.35 MI (0.56 KM) TO A Y-JUNCTION, CONTINUE NORTHEAST ON THE SAND ROAD
AJ6648 'FOR 0.25 MI (0.40 KM) TO THE SOUTHWEST END OF A BRIDGE (SPANNING
AJ6648 'KISSIMMEE RIVER CANAL) , CONTINUE NORTHEAST ON THE SAND ROAD FOR 3.2
AJ6648 'MI (5.1 KM) TO A LOCKED GATE AND A 90 DEGREE TURN EAST, CONTINUE EAST
AJ6648 'ON THE SAND ROAD FOR 0.2 MI (0.3 KM) TO THE T-JUNCTION OF A SAND ROAD
AJ6648 'AND A POWER LINE, TURN LEFT ON THE SAND ROAD AND GO NORTHEAST FOR 75.0
AJ6648 'FT (22.9 M) TO A LOCKED GATE, CONTINUE NORTHEAST ON THE SAND ROAD FOR
AJ6648 '7.0 MI (11.3 KM) TO THE MARK ON THE RIGHT, SET IN THE TOP OF A ROUND
AJ6648 'CONCRETE MONUMENT FLUSH WITH THE GROUND AND LEVEL WITH THE SAND ROAD.
AJ6648 'LOCATED 540.0 FT (164.6 M) NORTH OF A FENCE LEADING WEST THEN
AJ6648 'SOUTHWEST, 74.5 FT (22.7 M) EAST OF THE APPROXIMATE CENTERLINE OF THE
AJ6648 'SAND ROAD, 1.5 FT (0.5 M) WEST OF A BARBWIRE FENCE AND 1.2 FT (0.4 M)
AJ6648 'WEST OF A CARSONITE WITNESS POST. NOTE FOR KEY CONTACT SOUTH FLORIDA
AJ6648 'WATER MANAGEMENT DISTRICT, PHONE NUMBER 561-686-8800.

*** retrieval complete.

Elapsed Time = 00:00:00

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

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DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.35
1 National Geodetic Survey, Retrieval Date = APRIL 28, 2006
AJ6649 *****
AJ6649 DESIGNATION - H 506
AJ6649 PID - AJ6649
AJ6649 STATE/COUNTY- FL/OSCEOLA
AJ6649 USGS QUAD - CYPRESS LAKE (1987)
AJ6649
AJ6649 *CURRENT SURVEY CONTROL
AJ6649
AJ6649 * NAD 83(1986)- 28 04 17. (N) 081 16 42. (W) SCALED
AJ6649 * NAVD 88 - 18.332 (meters) 60.14 (feet) ADJUSTED
AJ6649
AJ6649 GEOID HEIGHT- -27.63 (meters) GEOID03
AJ6649 DYNAMIC HT - 18.305 (meters) 60.06 (feet) COMP
AJ6649 MODELED GRAV- 979,150.2 (mgal) NAVD 88
AJ6649
AJ6649 VERT ORDER - SECOND CLASS I
AJ6649
AJ6649 .The horizontal coordinates were scaled from a topographic map and have
AJ6649 .an estimated accuracy of +/- 6 seconds.
AJ6649
AJ6649 .The orthometric height was determined by differential leveling
AJ6649 .and adjusted by the National Geodetic Survey in April 2004..
AJ6649
AJ6649 .The geoid height was determined by GEOID03.
AJ6649
AJ6649 .The dynamic height is computed by dividing the NAVD 88
AJ6649 .geopotential number by the normal gravity value computed on the
AJ6649 .Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ6649 .degrees latitude (g = 980.6199 gals.).
AJ6649
AJ6649 .The modeled gravity was interpolated from observed gravity values.
AJ6649
AJ6649 ;
AJ6649 ; North East Units Estimated Accuracy
AJ6649 ; SPC FL E - 414,150. 172,640. MT (+/- 180 meters Scaled)
AJ6649
AJ6649 SUPERSEDED SURVEY CONTROL
AJ6649
AJ6649 .No superseded survey control is available for this station.
AJ6649
AJ6649 _U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMM726051(NAD 83)
AJ6649 _MARKER: DD = SURVEY DISK
AJ6649 _SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AJ6649 _STAMPING: H 506 2001
AJ6649 _MARK LOGO: FLDEP
AJ6649 _PROJECTION: FLUSH
AJ6649 _MAGNETIC: B = BAR MAGNET IMBEDDED IN MONUMENT
AJ6649 _STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ6649 +STABILITY: SURFACE MOTION
AJ6649 _SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ6649 +SATELLITE: SATELLITE OBSERVATIONS - November 22, 2002
AJ6649
AJ6649 HISTORY - Date Condition Report By
AJ6649 HISTORY - 2001 MONUMENTED FLDEP
AJ6649 HISTORY - 20021122 GOOD FLDEP
AJ6649
AJ6649 STATION DESCRIPTION
AJ6649
AJ6649 'DESCRIBED BY FL DEPT OF ENV PRO 2001 (JLM)
AJ6649 'THE MARK IS ABOUT 28.9 MI (46.5 KM) EAST-NORTHWEST OF LAKE WALES, IN
AJ6649 'SECTION 1, TOWNSHIP 28 SOUTH, RANGE 30 EAST. TO REACH THE MARK FROM
AJ6649 'THE INTERSECTION OF STATE ROAD 27 AND STATE ROAD 60 IN LAKE WALES, GO
AJ6649 'EAST-SOUTHEAST ON STATE ROAD 60 FOR 7.3 MI (11.7 KM) TO THE JUNCTION
AJ6649 'OF MAMMOTH GROVE ROAD ON THE LEFT, TURN LEFT ON MAMMOTH GROVE ROAD AND
AJ6649 'GO NORTH FOR 2.05 MI (3.30 KM) TO THE JUNCTION OF CAMP MACK ROAD ON
AJ6649 'THE RIGHT, TURN RIGHT ON CAMP MACK ROAD AND GO NORTH FOR 0.25 MI (0.40
AJ6649 'KM) TO A CURVE EAST, CONTINUE EAST ON CAMP MACK ROAD FOR 2.3 MI (3.7
AJ6649 'KM) TO THE JUNCTION OF BARNEY KEEN ROAD (BOY SCOUT ROAD) ON THE RIGHT,

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