

The NGS Data Sheet

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

PROGRAM = datasheet95, VERSION = 8.00

```

1      National Geodetic Survey,   Retrieval Date = DECEMBER  4, 2012
HE0353 *****
HE0353 CBN          -   This is a Cooperative Base Network Control Station.
HE0353 DESIGNATION -   M 55
HE0353 PID          -   HE0353
HE0353 STATE/COUNTY-   KS/NEOSHO
HE0353 COUNTRY      -   US
HE0353 USGS QUAD    -   STARK (1973)
HE0353
HE0353                                *CURRENT SURVEY CONTROL
HE0353
HE0353* NAD 83(2011) POSITION- 37 38 49.12242(N) 095 10 45.06310(W)   ADJUSTED
HE0353* NAD 83(2011) ELLIP HT- 265.277 (meters)                (06/27/12)   ADJUSTED
HE0353* NAD 83(2011) EPOCH   - 2010.00
HE0353* NAVD 88 ORTHO HEIGHT - 296.200 (meters)                971.78 (feet) ADJUSTED
HE0353
HE0353 NAD 83(2011) X   -  -456,469.247 (meters)                COMP
HE0353 NAD 83(2011) Y   -  -5,036,022.479 (meters)                COMP
HE0353 NAD 83(2011) Z   -  3,874,655.275 (meters)                COMP
HE0353 LAPLACE CORR    -  -0.66 (seconds)                        DEFLEC12A
HE0353 GEOID HEIGHT    -  -30.93 (meters)                        GEOID12A
HE0353 DYNAMIC HEIGHT  -  295.969 (meters)                971.03 (feet) COMP
HE0353 MODELED GRAVITY  -  979,842.9 (mgal)                    NAVD 88
HE0353
HE0353 VERT ORDER      -   SECOND      CLASS 0
HE0353
HE0353 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
HE0353 Type                                     Horiz Ellip Dist(km)
HE0353 -----
HE0353 NETWORK                                     0.71  1.43
HE0353 -----
HE0353 MEDIAN LOCAL ACCURACY AND DIST (022 points)  0.73  1.46  159.04
HE0353 -----
HE0353 NOTE: Click here for information on individual local accuracy
HE0353 values and other accuracy information.
HE0353
HE0353
HE0353.The horizontal coordinates were established by GPS observations
HE0353.and adjusted by the National Geodetic Survey in June 2012.
HE0353
HE0353.NAD 83(2011) refers to NAD 83 coordinates where the reference
HE0353.frame has been affixed to the stable North American tectonic plate. See
HE0353.NA2011 for more information. for more information.
HE0353
HE0353.The horizontal coordinates are valid at the epoch date displayed above
HE0353.which is a decimal equivalence of Year/Month/Day.
HE0353
HE0353.The orthometric height was determined by differential leveling and
HE0353.adjusted by the NATIONAL GEODETIC SURVEY
HE0353.in June 1991.
HE0353

```

HE0353.The X, Y, and Z were computed from the position and the ellipsoidal ht.

HE0353

HE0353.The Laplace correction was computed from DEFLEC12A derived deflections.

HE0353

HE0353.The ellipsoidal height was determined by GPS observations

HE0353.and is referenced to NAD 83.

HE0353

HE0353.The dynamic height is computed by dividing the NAVD 88

HE0353.geopotential number by the normal gravity value computed on the

HE0353.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

HE0353.degrees latitude (g = 980.6199 gals.).

HE0353

HE0353.The modeled gravity was interpolated from observed gravity values.

HE0353

HE0353. The following values were computed from the NAD 83(2011) position.

HE0353

HE0353;		North	East	Units	Scale Factor	Converg.
HE0353;SPC KS S	-	514,017.790	692,990.592	MT	0.99994702	+2 02 26.6
HE0353;SPC KS S	-	1,686,406.70	2,273,586.63	sFT	0.99994702	+2 02 26.6
HE0353;UTM 15	-	4,168,881.430	307,748.048	MT	1.00005528	-1 19 53.2

HE0353

HE0353!
- Elev Factor x Scale Factor = Combined Factor

HE0353!SPC KS S - 0.99995837 x 0.99994702 = 0.99990540

HE0353!UTM 15 - 0.99995837 x 1.00005528 = 1.00001365

HE0353

HE0353

SUPERSEDED SURVEY CONTROL

HE0353

HE0353	NAD 83(2007)-	37 38 49.12249(N)	095 10 45.06369(W)	AD()	0
HE0353	ELLIP H (02/10/07)	265.294 (m)		GP()	
HE0353	NAD 83(1997)-	37 38 49.12251(N)	095 10 45.06373(W)	AD()	A
HE0353	ELLIP H (08/12/03)	265.289 (m)		GP()	4 1
HE0353	NAD 83(1997)-	37 38 49.12645(N)	095 10 45.07155(W)	AD()	3
HE0353	ELLIP H (10/02/98)	264.668 (m)		GP()	4 1
HE0353	NAD 83(1993)-	37 38 49.13263(N)	095 10 45.06952(W)	AD()	3
HE0353	NAD 83(1986)-	37 38 49.14476(N)	095 10 45.06932(W)	AD()	3
HE0353	NAVD 88 (08/12/03)	296.20 (m)	971.8 (f)	LEVELING	3
HE0353	NGVD 29 (??/??/92)	296.067 (m)	971.35 (f)	ADJ UNCH	2 0

HE0353

HE0353.Superseded values are not recommended for survey control.

HE0353

HE0353.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

HE0353.[See file dsdata.txt](#) to determine how the superseded data were derived.

HE0353

HE0353_U.S. NATIONAL GRID SPATIAL ADDRESS: 15SUB0774868881(NAD 83)

HE0353

HE0353_MARKER: DB = BENCH MARK DISK

HE0353_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

HE0353_SP_SET: CONCRETE POST

HE0353_STAMPING: M 55 1934

HE0353_MARK LOGO: CGS

HE0353_MAGNETIC: N = NO MAGNETIC MATERIAL

HE0353_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

HE0353+STABILITY: SURFACE MOTION

HE0353_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

HE0353+SATELLITE: SATELLITE OBSERVATIONS - August 02, 2002

HE0353

HE0353	HISTORY	- Date	Condition	Report By
HE0353	HISTORY	- 1934	MONUMENTED	CGS
HE0353	HISTORY	- 1964	GOOD	CGS
HE0353	HISTORY	- 19890701	GOOD	NGS
HE0353	HISTORY	- 20020802	GOOD	NGS

HE0353 HISTORY - 20080111 GOOD

HE0353

HE0353 STATION DESCRIPTION

HE0353

HE0353'DESCRIBED BY COAST AND GEODETIC SURVEY 1934

HE0353'8.9 MI N FROM ERIE.

HE0353'6.9 MILES NORTH ALONG THE MISSOURI-KANSAS-TEXAS RAILROAD FROM

HE0353'ERIE, NEOSHO COUNTY, AT MILEPOST 114, AT A ROAD CROSSING, 48

HE0353'FEET NORTHWEST OF THE CENTER OF THE CROSSING, AND 36 FEET WEST

HE0353'OF THE CENTER LINE OF THE COUNTY ROAD. A STANDARD DISK, STAMPED

HE0353'M 55 1934 AND SET IN THE TOP OF A CONCRETE POST. NOTE-- 1964

HE0353'REPORT, THE BENCH MARK IS 10 FEET NORTHWEST OF MILE POST 74 AND

HE0353'PROJECTS ABOUT 4 INCHES.

HE0353

HE0353 STATION RECOVERY (1964)

HE0353

HE0353'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1964

HE0353'RECOVERED IN GOOD CONDITION.

HE0353

HE0353 STATION RECOVERY (1989)

HE0353

HE0353'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1989

HE0353'THE STATION IS LOCATED ABOUT 24 KM (14.90 MI) EAST OF CHANUTE, 5.6 KM

HE0353'(3.50 MI) SOUTHWEST OF STARK, AT THE JUNCTION OF A GRAVEL ROAD AND A

HE0353'RAILROAD TRACK, IN BELT-HIGH WEEDS ON RAILROAD RIGHT-OF-WAY, IN THE

HE0353'SOUTHWEST 1/4 OF SECTION 35, T 27 S, R 20 E.

HE0353'OWNERSHIP--MISSOURI-KANSAS-TEXAS RAILROAD.

HE0353'TO REACH THE STATION FROM THE JUNCTION OF U.S. HIGHWAY 59 AND STATE

HE0353'HIGHWAYS 39 AND 201, 1.6 KM (1.00 MI) WEST OF STARK, GO EAST ON

HE0353'HIGHWAY 201 FOR 45.8 M (150.3 FT) TO A GRAVEL CROSSROAD. TURN RIGHT

HE0353'AND GO SOUTH FOR 3.25 KM (2.00 MI) TO A RAILROAD TRACK AND ROAD RIGHT

HE0353'AT THE KIMBALL COMMUNITY. TURN RIGHT AND GO WEST THROUGH TOWN FOR 1.6

HE0353'KM (1.00 MI) TO A CROSSROAD. TURN LEFT AND GO SOUTH FOR 1.45 KM

HE0353'(0.90 MI) TO THE RAILROAD TRACK AND THE STATION ON THE RIGHT.

HE0353'THE STATION IS A STANDARD CGS DISK SET IN THE TOP OF A 20 CM SQUARE

HE0353'CONCRETE POST PROJECTING 5 CM ABOVE THE GROUND. LOCATED 13.7 M

HE0353'(44.9 FT) NORTH-NORTHWEST OF THE NORTH RAIL, 11.0 M (36.1 FT) WEST OF

HE0353'THE ROAD CENTER, 5.3 M (17.4 FT) WEST-SOUTHWEST OF A FENCE CORNER, 0.9

HE0353'M (3.0 FT) SOUTH-SOUTHEAST OF FENCE LINE AND 0.5 M (1.6 FT) EAST OF A

HE0353'CARSONITE WITNESS POST.

HE0353'DESCRIBED BY G.R. HEID, TYPED BY HJS.

HE0353

HE0353 STATION RECOVERY (2002)

HE0353

HE0353'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2002 (GMR)

HE0353'THE STATION IS LOCATED ABOUT 24 KM (14.9 MI) EAST OF CHANUTE, 5.6 KM

HE0353'(3.5 MI) SOUTHWEST

HE0353'OF STARK, AT A GRAVEL ROAD AND RAILROAD CROSSING, AT RAILROAD MILE

HE0353'POST 114, ON

HE0353'RAILROAD RIGHT-OF-WAY, AND IN THE SOUTHWEST 1/4 OF SECTION 35, T 27 S,

HE0353'R 20 E.

HE0353'OWNERSHIP--MISSOURI-KANSAS-TEXAS RAILROAD. TO REACH THE STATION FROM

HE0353'THE JUNCTION OF

HE0353'U.S. HIGHWAY 59 AND STATE HIGHWAYS 39 AND 201 EAST, ABOUT 1.6 KM (1.0

HE0353'MI) WEST OF STARK,

HE0353'GO EAST ON STATE HIGHWAY 201 FOR ABOUT 45.7 M (150 FT) TO A PAVED

HE0353'CROSSROAD. TURN RIGHT

HE0353'AND GO SOUTH ON THE PAVED ROAD FOR 3.22 KM (2.0 MI) TO A RAILROAD

HE0353'CROSSING AT THE SMALL

HE0353'COMMUNITY OF KIMBALL, AND ROAD ON THE RIGHT LEADING WEST THROUGH THE

HE0353'KIMBALL

HE0353'COMMUNITY. TURN RIGHT AND GO WEST ON THE GRAVEL ROAD, THROUGH THE
HE0353'SMALL COMMUNITY,
HE0353'FOR 1.6 KM (1.0 MI) TO A GRAVEL CROSSROAD. TURN LEFT AND GO SOUTH ON
HE0353'THE GRAVEL ROAD FOR
HE0353'1.45 KM (0.90 MI) TO A RAILROAD CROSSING AND THE STATION ON THE
HE0353'RIGHT. THE STATION
HE0353'PROJECTS 5 CM ABOVE GROUND. LOCATED 14.9 M (49.0 FT) NORTHWEST FROM
HE0353'THE CENTER OF THE
HE0353'RAILROAD CROSSING AND GRAVEL ROAD, 13.7 M (44.9 FT) NORTH-NORTHWEST
HE0353'FROM THE NORTH
HE0353'RAIL OF RAILROAD TRACK, 11.0 M (36.0 FT) WEST FROM THE CENTER OF THE
HE0353'GRAVEL ROAD, 5.3 M (17.4
HE0353'FT) WEST-SOUTHWEST FROM A FENCE CORNER, 0.9 M (3.0 FT) SOUTH-SOUTHEAST
HE0353'FROM A FENCE
HE0353'LINE, AND 0.5 M (1.6 FT) EAST FROM A FIBERGLASS WITNESS POST.

HE0353

HE0353

STATION RECOVERY (2008)

HE0353

HE0353'RECOVERY NOTE BY 2008

HE0353'MODIFIED DIRECTIONS TO INCLUDED ROAD NAMES. TO REACH THE STATION FROM
HE0353'THE JUNCTION OF U.S. HIGHWAY 59 AND STATE HIGHWAYS 39 AND 201 EAST,
HE0353'ABOUT 1.6 KM (1.0 MI) WEST OF STARK, GO EAST ON STATE HIGHWAY 201 FOR
HE0353'ABOUT 45.7 M (150 FT) TO UDALL ROAD (THE PAVED CROSSROAD).
HE0353'TURN RIGHT AND GO SOUTH ON UDALL ROAD FOR 3.22 KM (2.0 MI) TO A
HE0353'RAILROAD CROSSING AND 200TH ROAD IN THE SMALL COMMUNITY OF KIMBALL.
HE0353'TURN RIGHT ON 200TH (GRAVEL) ROAD AND GO WEST, THROUGH THE SMALL
HE0353'COMMUNITY, FOR 1.6 KM (1.0 MI) TO TREGO ROAD.
HE0353' TURN LEFT ON TREGO ROAD AND GO SOUTH ON THE GRAVEL ROAD FOR 1.45 KM
HE0353'(0.90 MI) TO A RAILROAD CROSSING AND THE STATION ON THE RIGHT.
HE0353'

*** retrieval complete.

Elapsed Time = 00:00:02