

OCD Hobbs

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

NOV 07 2018

RECEIVED

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM137471
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: ☐ Hydraulic Fracturing ☒ Single Zone ☐ Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator AMEREDEV OPERATING LLC (77224)		8. Lease Name and Well No. GOLDEN BELL FED COM 26 36 06 125H (322777)
3a. Address 5707 Southwest Parkway, Building 1, Suite 275 Austin TX	3b. Phone No. (include area code) (737)300-4700	9. API Well No. 30-025-45336
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface LOT O / 200 FSL / 2330 FEL / LAT 32.0801265 / LONG -103.3031972 At proposed prod. zone SWSE / 200 FSL / 2318 FEL / LAT 32.0510821 / LONG -103.3031129		10. Field and Pool, or Laboratory WC-025 G-09 S263624C / WOLFCAMP (98234)
11. Sec., T. R. M. or Blk. and Survey or Area SEC 31 / T25S / R36E / NMP		
12. Distance in miles and direction from nearest town or post office* 6.5 miles		12. County or Parish LEA
13. State NM		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 200 feet	16. No of acres in lease 360	17. Spacing Unit dedicated to this well 320
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 4310 feet	19. Proposed Depth 12450 feet / 22822 feet	20. BLM/BIA Bond No. in file FED: NMB001478
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3014 feet	22. Approximate date work will start* 07/01/2019	23. Estimated duration 90 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be requested by the BLM. |

25. Signature (Electronic Submission)	Name (Printed/Typed) Christie Hanna / Ph: (737)300-4723	Date 07/19/2018
Title Senior Engineering Technician		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Christopher Walls / Ph: (575)234-2234	Date 10/24/2018
Title Petroleum Engineer		
Office CARLSBAD		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

6CP Rec 11/21/18

APPROVED WITH CONDITIONS

Approval Date: 10/24/2018

REQUIRES NSL

11/07/18

Double Sided

(Continued on page 2)

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to allow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Connection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Additional Operator Remarks

Location of Well

1. SHL: LOT O / 200 FSL / 2330 FEL / TWSP: 25S / RANGE: 36E / SECTION: 31 / LAT: 32.0801265 / LONG: -103.3031972 (TVD: 0 feet, MD: 0 feet)
PPP: SWSE / 0 FNL / 2333 FEL / TWSP: 25S / RANGE: 36E / SECTION: 31 / LAT: 32.0795768 / LONG: -103.3032092 (TVD: 12350 feet, MD: 12435 feet)
PPP: SWSE / 5283 FNL / 2318 FEL / TWSP: 26S / RANGE: 36E / SECTION: 6 / LAT: 32.065056 / LONG: -103.3031343 (TVD: 12450 feet, MD: 17738 feet)
PPP: SWSE / 200 FSL / 2330 FEL / TWSP: 25S / RANGE: 36E / SECTION: 31 / LAT: 32.0801265 / LONG: -103.3031972 (TVD: 0 feet, MD: 0 feet)
PPP: NWNE / 0 FNL / 2333 FEL / TWSP: 26S / RANGE: 36E / SECTION: 6 / LAT: 32.0795768 / LONG: -103.3032092 (TVD: 12350 feet, MD: 12435 feet)
BHL: SWSE / 200 FSL / 2318 FEL / TWSP: 26S / RANGE: 36E / SECTION: 7 / LAT: 32.0510821 / LONG: -103.3031129 (TVD: 12450 feet, MD: 22822 feet)

BLM Point of Contact

Name: Priscilla Perez

Title: Legal Instruments Examiner

Phone: 5752345934

Email: pperez@blm.gov

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Operator Certification Data Report

10/24/2018

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Christie Hanna

Signed on: 10/02/2018

Title: Senior Engineering Technician

Street Address: 5707 Southwest Parkway, Building 1, Suite 275

City: Austin

State: TX

Zip: 78735

Phone: (737)300-4723

Email address: channa@ameredev.com

Field Representative

Representative Name: ZACHARY BOYD

Street Address: 5707 SOUTHWEST PARKWAY, BLDG 1, STE. 275

City: AUSTIN

State: TX

Zip: 78735

Phone: (737)300-4700

Email address: zboyd@ameredev.com



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Application Data Report

10/24/2018

APD ID: 10400032278

Submission Date: 07/19/2018

Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Type: OIL WELL

Well Number: 125H

Well Work Type: Drill

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reflects the most
recent changes

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Section 1 - General

APD ID: 10400032278

BLM Office: CARLSBAD

Federal/Indian APD: FED

Lease number: NMNM137471

Surface access agreement in place?

Agreement in place? NO

Agreement number:

Agreement name:

Keep application confidential? NO

Permitting Agent? NO

Operator letter of designation:

Tie to previous NOS? 10400030260

User: Christie Hanna

Is the first lease penetrated for production Federal or Indian? FED

Lease Acres: 360

Allotted?

Reservation:

Federal or Indian agreement:

Submission Date: 07/19/2018

Title: Senior Engineering Technician

APD Operator: AMEREDEV OPERATING LLC

Operator Info

Operator Organization Name: AMEREDEV OPERATING LLC

Operator Address: 5707 Southwest Parkway, Building 1, Suite 275

Operator PO Box:

Zip: 78735

Operator City: Austin

State: TX

Operator Phone: (737)300-4700

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO

Well in Master SUPO? NO

Well in Master Drilling Plan? NO

Well Name: GOLDEN BELL FED COM 26 36 06

Field/Pool or Exploratory? Field and Pool

Is the proposed well in an area containing other mineral resources? USEABLE WATER

Mater Development Plan name:

Master SUPO name:

Master Drilling Plan name:

Well Number: 125H

Field Name: WC-025 G-09
S263620C

Well API Number:

Pool Name: WOLFCAMP

Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Number: 125H

Describe other minerals:

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name:

Number: 125H

Well Class: HORIZONTAL

GOLDEN BELL

Number of Legs: 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 6.5 Miles

Distance to nearest well: 4310 FT

Distance to lease line: 200 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: GOLDEN_BELL_FED_COM_26_36_06_125H__C_102_SIG_20180719133717.pdf

GOLDEN_BELL_FED_COM_26_36_06_125H__BLM_LEASES_20180719133716.pdf

GOLDEN_BELL_FED_COM_26_36_06_125H__EXHIBIT_2A_2B_20180719133718.pdf

GOLDEN_BELL_FED_COM_26_36_06_125H__VICINITY_MAP_20180719133719.pdf

GOLDEN_BELL_FED_COM_26_36_06_125H__GAS_CAPTURE_PLAN_20180719133731.pdf

Well work start Date: 07/01/2019

Duration: 90 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number: 19642

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	200	FSL	233 0	FEL	25S	36E	31	Lot O	32.08012 65	- 103.3031 972	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 137469	301 4	0	0

Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Number: 125H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
KOP Leg #1	251	FSL	234 4	FEL	25S	36E	31	Aliquot SWSE	32.08026 54	- 103.3032 439	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 137469	- 886 3	118 77	118 77
PPP Leg #1	200	FSL	233 0	FEL	25S	36E	31	Aliquot SWSE	32.08012 65	- 103.3031 972	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 137469	301 4	0	0
PPP Leg #1	0	FNL	233 3	FEL	26S	36E	6	Aliquot NWNE	32.07957 68	- 103.3032 092	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 137471	- 933 6	124 35	123 50
PPP Leg #1	0	FNL	233 3	FEL	25S	36E	31	Aliquot SWSE	32.07957 68	- 103.3032 092	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 137469	- 933 6	124 35	123 50
PPP Leg #1	528 3	FNL	231 8	FEL	26S	36E	6	Aliquot SWSE	32.06505 6	- 103.3031 343	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 137471	- 943 6	177 38	124 50
EXIT Leg #1	528 3	FNL	231 8	FEL	26S	36E	7	Aliquot NWNE	32.06505 6	- 103.3031 343	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 137472	- 943 6	177 38	124 50
BHL Leg #1	200	FSL	231 8	FEL	26S	36E	7	Aliquot SWSE	32.05108 21	- 103.3031 129	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 137472	- 943 6	228 22	124 50



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report

10/24/2018

APD ID: 10400032278

Submission Date: 07/19/2018

Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Type: OIL WELL

Well Number: 125H

Well Work Type: Drill

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recent changes

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Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	NIJUEP ANCHORITE	2014	1033	1032	ANHYDRITE	NONE	No
2	SALT	1808	1500	1506	SALT	NONE	No
3	TANQU	-220	8231	8244	LIMESTONE	NONE	No
4	CAPTANIEEF	-720	8734	8734	LIMESTONE	USEABLE WATER	No
5	LYNNAL	-2319	8007	8004	LIMESTONE	NONE	No
6	BEUL CANYON	-2004	8008	8008	SANDSTONE	NATURAL GAS/OIL	No
7	BRUSHY CANYON	-707	7111	7111	SANDSTONE	NATURAL GAS/OIL	No
8	BONE SPRING LIME	-8222	8319	8336	LIMESTONE	NONE	No
9	BONE SPRING LST	-6555	8712	8712	SANDSTONE	NATURAL GAS/OIL	No
10	BONE SPRING SND	-4357	10271	10271	SANDSTONE	NATURAL GAS/OIL	No
11	BONE SPRING SMD	-7144	10653	10653	LIMESTONE	NATURAL GAS/OIL	No
12	BONE SPRING LND	-8442	11476	11476	SANDSTONE	NATURAL GAS/OIL	No
13	WOLF CAMP	-8700	11720	11720	SHALE	NATURAL GAS/OIL	No
14	WOLF CAMP	-8972	12007	12007	SHALE	NATURAL GAS/OIL	Yes

Section 2 - Blowout Prevention

Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Number: 125H

Pressure Rating (PSI): 10M

Rating Depth: 15000

Equipment: 10M BOP SYSTEM WILL BE USED AFTER THE SURFACE CASING IS SET. A KELLY COCK WILL BE KEPT IN THE DRILL STRING AT ALL TIMES. A FULL OPENING DRILL PIPE STABBING VALVE WITH PROPER DRILL PIPE CONNECTIONS WILL BE ON THE RIG FLOOR AT ALL TIMES.

Requesting Variance? YES

Variance request: Co-Flex Choke Line

Testing Procedure: See attachment

Choke Diagram Attachment:

10M_Choke_Manifold_20181002122643.pdf

BOP Diagram Attachment:

5M_BOP_System_20180719140020.pdf

4String_MB_Ameredev_Drawing_net_REV_20180719140057.pdf

Pressure_Control_Plan_Pad_Well_MB4_Preset_BLM_002_20181002122702.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1191	0	1191	3014		1191	J-55	54.5	OTHER - BTC	1.83	0.9	DRY	14	DRY	13.15
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5083	0	5083	3014		5083	HCL-80	40	OTHER - BTC	1.39	0.89	DRY	5.12	DRY	4.51
3	INTERMEDIATE	8.75	7.625	NEW	API	N	0	11878	0	11878	3014		11878	HCP-110	29.7	OTHER - FJM	1.03	1.17	DRY	1.84	DRY	2.66
4	PRODUCTION	6.75	5.5	NEW	API	N	0	22822	0	12450	3014		22822	P-110	20	OTHER - CYHP TMK-UP SF TORQ	1.66	1.78	DRY	2.63	DRY	2.92

Casing Attachments

Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Number: 125H

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

GOLDEN_BELL_26_36_06_125H___CASING_DESIGN_CHECK_20180719144214.pdf

20180626_GOLDEN_BELL_FED_COM_26_36_06_125H_4_STRING_PH_WBD_20181002122748.pdf

13.375_54.50_J55_SEAH_20181002122800.pdf

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

GOLDEN_BELL_26_36_06_125H___CASING_DESIGN_CHECK_20180719144224.pdf

9625_40_SeAH80HC_4100_Collapse_20181002122854.pdf

20180626_GOLDEN_BELL_FED_COM_26_36_06_125H_4_STRING_PH_WBD_20181002122908.pdf

Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Number: 125H

Casing Attachments

Casing ID: 3 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

GOLDEN_BELL_26_36_06_125H__CASING_DESIGN_CHECK_20180719144341.pdf

20180626_GOLDEN_BELL_FED_COM_26_36_06_125H_4_STRING_PH_WBD_20181002122929.pdf

7.625_29.70_P110HC_LIBERTY_FJM_20181002122939.pdf

Casing ID: 4 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

GOLDEN_BELL_26_36_06_125H__CASING_DESIGN_CHECK_20180719144549.pdf

TMK_UP_SF_TORQ___5.500in_x_20.00__P_110_CYHP_20181002123338.pdf

20180626_GOLDEN_BELL_FED_COM_26_36_06_125H_4_STRING_PH_WBD_20181002123347.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	807	735	1.89	12.9	1390.62	100	GLASSG	Bentonite, Retarder, Kolseal, Defoamer, Celloflake

Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Number: 125H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Tail		807	1191	200	1.33	14.8	266.4	100	CLASS C	NONE
INTERMEDIATE	Lead		0	3484	1005	1.88	12.9	1878	50	CLASS C	Bentonite, Salt, Kolseal, Defoamer, Celloflake
INTERMEDIATE	Tail		3484	5083	375	1.33	14.8	500.25	25	CLASS C	NONE
INTERMEDIATE	Lead		4583	10646	278	2.85	11	790.91	25	CLASS H	Bentonite, Retarder, Kolseal, Defoamer, Celloflake, Anti-settling Expansion Additive
INTERMEDIATE	Tail		10646	11878	100	1.24	14.5	123.7	25	CLASS H	Bentonite, Retarder, Dispersant, Fluid Loss
PRODUCTION	Lead		11378	22822	980	1.22	14.5	1198.54	25	CLASS H	Retarder, Kolseal, Defoamer, Celloflake, Expansion Additive
PRODUCTION	Tail		22822	22822						CLASS H	none

Section 5 - Circulating Medium

Mud System Type: Semi-Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: All necessary supplies (e.g. bentonite, cedar bark) for fluid control will be on site.

Describe the mud monitoring system utilized: An electronic pit volume totalizer (PVT) will be utilized on the circulating system to monitor pit volume, flow rate, pump pressure, and pump rate.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
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Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Number: 125H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1191	WATER-BASED MUD	8.6	10							
1191	5083	SALT SATURATED	10	11.5							
5083	1187 8	OTHER : CUT BRINE	9.5	10.5							
1187 8	1245 0	OIL-BASED MUD	11.5	12.5							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

A directional survey, caliper, compensated density and neutron, gamma ray, induction, lateral log, sonic, measurement while drilling and a mudlog/geologic lithology log will all be run from surface to TD.

List of open and cased hole logs run in the well:

CALIPER,CDL,CNL,DS,DIL,DLL,GR,MWD,MUDLOG,SONIC

Coring operation description for the well:

No coring will be done on this well.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5000

Anticipated Surface Pressure: 2261

Anticipated Bottom Hole Temperature(F): 160

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

H2S_Plan_20180719150116.pdf

Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Number: 125H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Golden_Bell_Fed_Com_26_36_06_125H_Plan_2_20180719150142.pdf

Pressure_Control_Plan_Pad_Well_MB4_Preset_BLM__002__20181002123708.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

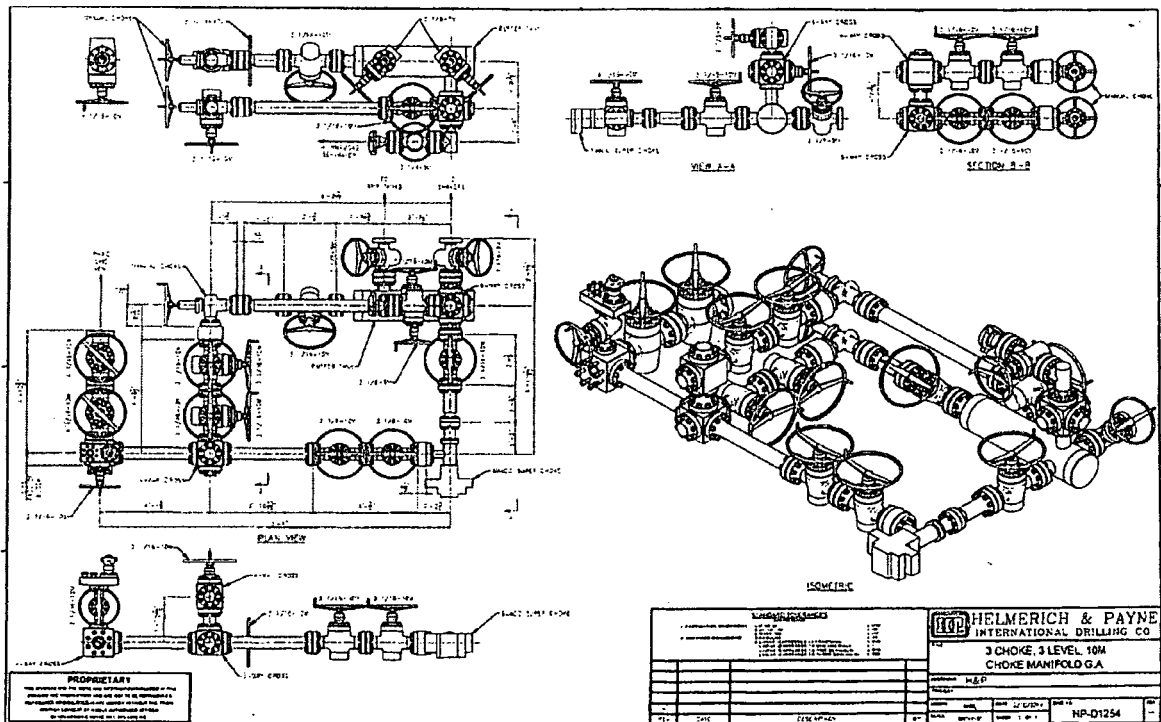
Other Variance attachment:

R616__CoC_for_hoses_12_18_17_20180719150241.pdf

Requested_Exceptions__4_String_Revised_09182018_20181002123857.pdf

10M Choke Manifold

10M Choke Manifold



AMEREDEV

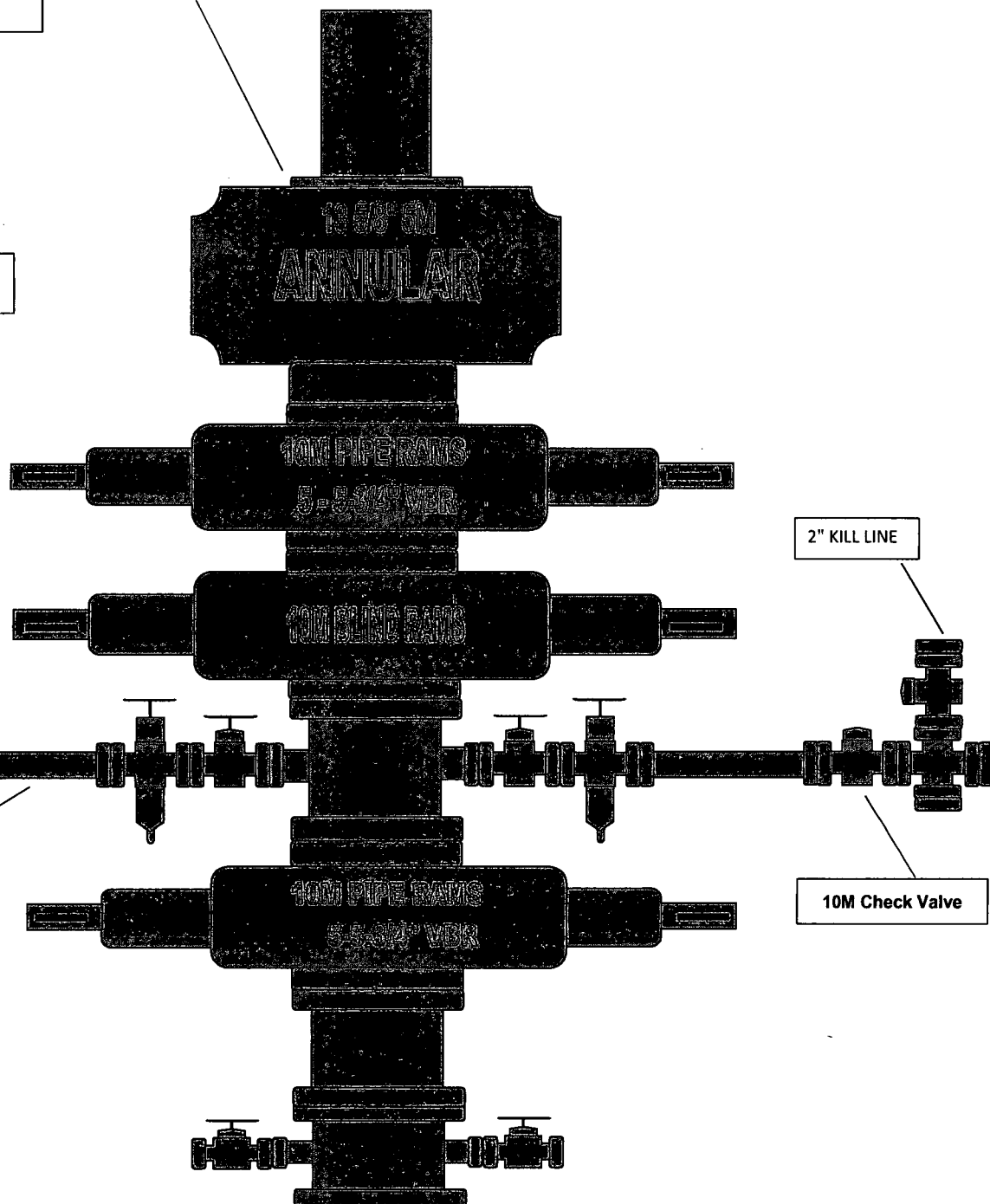
13 5/8" 5M BOP
Configuration

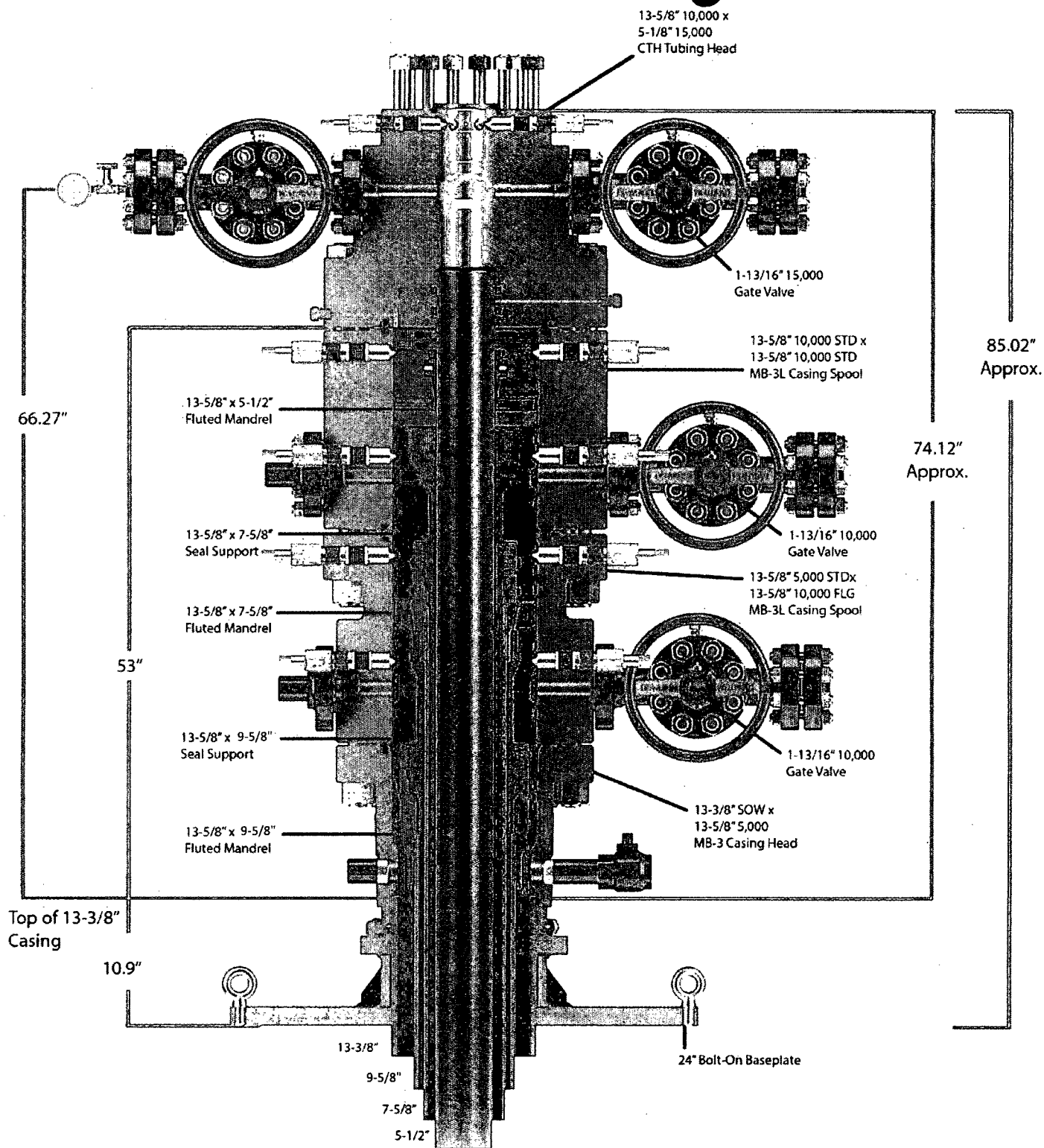
CO-FLEX LINE TO
CHOKE MANIFOLD

2" KILL LINE

4" 10M VALVES &

10M Check Valve





Quotation

Downing Wellhead Equipment

Oklahoma City,
Oklahoma - USA

Reference Data:

16925 AMEREDEV

Proprietary and Confidential

The information contained in this drawing is the sole property of Downing Wellhead Equipment, any reproduction in part or in whole without the written permission of Downing Wellhead Equipment is prohibited.

TITLE:

AMEREDEV OPERATING, LLC, MB-3 4-STRING,
LEA COUNTY, NM

DRAWN		SIZE	DWG. NO.	REV.
CHECKED		A		
APPROVED		Scale:	Weight:	Sheet:



Pressure Control Plan

Pressure Control Equipment

- Ameredev will utilize a drilling rig not capable of drilling to TD to preset Surface Casing.
- Following setting of 13-3/8" Surface Casing Ameredev will install 13-5/8 MB4 Multi Bowl Casing Head by welding on a 13-5/8 SOW x 13-5/8" 5M in combination with 13-5/8 5M x 13-5/8 10M B-Sec to Land Intm #1 and a 13-5/8 10M x 13-5/8 10M shouldered to land C-Sec to Land Intm #2 (Installation procedure witnessed and verified by a manufacturer's representative).
- Casing will be tested to 1500psi or .22 psi/ft whichever is greater for 30 minutes with <10% leak off, but will not exceed 70% of the burst rating per Onshore Order No. 2.
- Ameredev will install Dry Hole Cap and install Pressure gauges to monitor. Ameredev will Suspend Operations to Mob to Adjacent Wells and Drill Surface
- Ameredev will Mobilize Rig capable of drilling to TD. (Rig Capable of Drilling to TD will not Mobilize until all wells on Drilling Pad have reached TD and Tubing Head installed and Tested) Ameredev will install a 5M System Blowout Preventer (BOPE) with a 5M Annular Preventer and related equipment (BOPE). Full testing will be performed utilizing a full isolation test plug and limited to 5,000psi MOP of MB4 Multi Bowl Casing Head. Pressure will be held for 10 min or until provisions of test are met on all valves and rams. The 5M Annular Preventer will be tested to 50% of approved working pressure (2,500psi). Casing will be tested to 1500psi or .22 psi/ft whichever is greater for 30 minutes with <10% leak off, but will not exceed 70% of the burst rating per Onshore Order No. 2.
- Setting of 9-5/8" Intermediate #1 will be done by landing a wellhead hanger in the 13-5/8" 5M Bowl, Cementing and setting Well Head Packing seals and testing same. (Installation procedure witnessed and verified by a manufacturer's representative) Casing will be tested to 1500psi or .22 psi/ft whichever is greater for 30 minutes with <10% leak off, but will not exceed 70% of the burst rating per Onshore Order No. 2.
- Full testing will be performed utilizing a full isolation test plug and limited to 5,000psi MOP of MB4 Multi Bowl Casing Head. Pressure will be held for 10 min or until provisions of test are met on all valves and rams. The 5M Annular Preventer will be tested to 50% of approved working pressure (2,500psi). Casing will be tested to 1500psi or .22 psi/ft whichever is greater for 30 minutes with <10% leak off, but will not exceed 70% of the burst rating per Onshore Order No. 2.



Pressure Control Plan

- Before drilling >20ft of new formation under the 9-5/8" Casing Shoe a pressure integrity test of the Casing Shoe will be performed to minimum of the MWE anticipated to control formation pressure to the next casing depth.
- Setting of 7-5/8" Intermediate #2 will be done by landing a wellhead hanger in the 13-5/8" 5M Bowl, Cementing and setting Well Head Packing seals and testing same. (Installation procedure witnessed and verified by a manufacturer's representative) Casing will be tested to 1500psi or .22 psi/ft whichever is greater for 30 minutes with <10% leak off, but will not exceed 70% of the burst rating per Onshore Order No. 2.
- Full testing will be performed utilizing a full isolation test plug and limited to 10,000psi MOP of MB4 Multi Bowl Casing Head. Pressure will be held for 10 min or until provisions of test are met on all valves and rams. The 5M Annular Preventer will be tested to 100% of approved working pressure (5,000psi). Casing will be tested to 1500psi or .22 psi/ft whichever is greater for 30 minutes with <10% leak off, but will not exceed 70% of the burst rating per Onshore Order No. 2.
- Before drilling >20ft of new formation under the 7-5/8" Casing Shoe a pressure integrity test of the Casing Shoe will be performed to minimum of the MWE anticipated to control formation pressure to the next casing depth.
- Following setting of 5-1/2" Production Casing and adequate WOC time Ameredev will break 5M System Blowout Preventer (BOP) from 10M DOL-2 Casing Head, install annulus casing slips and test same (Installation procedure witnessed and verified by a manufacturer's representative) and install 11" 10M x 5-1/8" 15M Tubing Head (Installation procedure witnessed and verified by a manufacturer's representative). Ameredev will test head to 70% casing design and install Dry Hole cap with needle valve and pressure gauge to monitor well awaiting completion.
- Slow pump speeds will be taken daily by each crew and recorded on Daily Drilling Report after mudding up.
- A choke manifold and accumulator with floor and remote operating stations will be functional and in place after installation of BOPE, as well as full functioning mud gas separator.
- Weekly BOPE pit level drills will be conducted by each crew and recorded on Daily Drilling Report.
- BOP will be fully operated when out of hole and will be documented on the daily drilling log.
- All B.O.P.s and associated equipment will be tested in accordance with Onshore Order #2
- All B.O.P. testing will be done by an independent service company.



Pressure Control Plan

- The B.O.P. will be tested within 21 days of the original test if drilling takes more time than planned.
- Ameredev requests a variance to connect the B.O.P. choke outlet to the choke manifold using a co-flex hose with a 10,000 psi working pressure that has been tested to 15,000psi and is built to API Spec 16C. Once the flex line is installed it will be tied down with safety clamps. (certifications will be sent to Carlsbad BLM Office prior to install)

Casing Design and Safety Factor Check

Casing Specifications						
Segment	Hole ID	Depth	OD	Weight	Grade	Coupling
Surface	17.5	1,191'	13.375	54.5	J-55	BTC
Int #1	12.25	5,083'	9.625	40	HCL-80	BTC
Int #2	8.75	11,878'	7.625	29.7	HCP-110	FJM
Prod Segment A	6.75	11,878'	5.5	20	CYHP-110	TMK UPSF
Prod Segment B	6.75	22,822'	5.5	20	CYHP-110	TMK UPSF

Check Surface Casing				
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
14.38	853	909	1,130	2,730
Safety Factors				
1.56	13.15	14.00	1.83	0.90
Check Int #1 Casing				
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
10.625	916	1042	4230	5750
Safety Factors				
0.81	4.51	5.12	1.39	0.89
Check Int #2 Casing				
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
7.625	940	558	6700	9460
Safety Factors				
0.56	2.66	1.84	1.03	1.17
Check Prod Casing, Segment A				
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
5.777	728	655	12780	14360
Safety Factors				
0.49	2.92	2.63	1.66	1.78
Check Prod Casing, Segment B				
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
5.777	728	655	12780	14360
Safety Factors				
0.49	63.64	57.26	1.58	1.78

PERFORMANCE DATA

TMK UP SF TORQ™
Technical Data Sheet

5.500 in

20.00 lbs/ft

P-110 CYHP

Tubular Parameters

Size	5.500	in	Minimum Yield	125,000	psi
Nominal Weight	20.00	lbs/ft	Minimum Tensile	135,000	psi
Grade	P-110 CYHP		Yield Load	728,000	lbs
PE Weight	19.81	lbs/ft	Tensile Load	786,000	lbs
Wall Thickness	0.361	in	Min. Internal Yield Pressure	14,360	psi
Nominal ID	4.778	in	Collapse Pressure	12,780	psi
Drift Diameter	4.653	in			
Nom. Pipe Body Area	5.828	in ²			

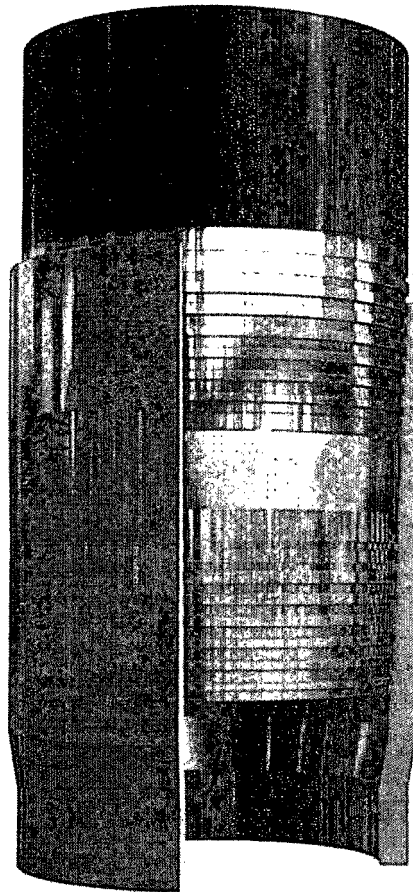
Connection Parameters

Connection OD	5.777	in
Connection ID	4.734	in
Make-Up Loss	5.823	in
Critical Section Area	5.875	in ²
Tension Efficiency	90.0	%
Compression Efficiency	90.0	%
Yield Load In Tension	655,000	lbs
Min. Internal Yield Pressure	14,360	psi
Collapse Pressure	12,780	psi
Uniaxial Bending	93.8	°/ 100 ft

Make-Up Torques

Min. Make-Up Torque	15,700	ft-lbs
Opt. Make-Up Torque	19,600	ft-lbs
Max. Make-Up Torque	21,600	ft-lbs
Operating Torque	29,000	ft-lbs
Yield Torque	37,000	ft-lbs

Printed on: January-10-2018



NOTE:

The content of this Technical Data Sheet is for general information only and does not guarantee performance or imply fitness for a particular purpose, which only a competent drilling professional can determine considering the specific installation and operation parameters. Information that is printed or downloaded is no longer controlled by TMK IPSCO and might not be the latest information. Anyone using the information herein does so at their own risk. To verify that you have the latest TMK IPSCO technical information, please contact TMK IPSCO Technical Sales toll-free at 1-888-258-2000.



Wellbore Schematic

Well: Golden Bell Fed Com 26-36-06 125H
SHL: Sec. 31 25S-36E 200' FSL & 2330' FEL
BHL: Sec. 7 26S-36E 200' FSL & 2318' FEL
 Lea, NM
Wellhead: A - 13-5/8" 5M x 13-5/8" SOW
 B - 13-5/8" 5M x 13-5/8" 10M
 C - 13-5/8" 10M x 13-5/8" 10M
 Tubing Spool - 5-1/8" 15M x 13-3/8" 10M
Xmas Tree: 2-9/16" 10M
Tubing: 2-7/8" L-80 6.5# 8rd EUE

Co. Well ID: xxxxx
AFE No.: xxxx-xxx
API No.: xxxxxxxxxxxx
GL: 3,014'
Field: Delaware_WCB
Objective: Wolfcamp B
TVD: 12,450'
MD: 22,822'
Rig: TBD
E-Mail: Wellsite2@ameredev.com

Hole Size	Formation Tops	Logs	Cement	Mud Weight
17.5"	Rustler 1,066'		935 Sacks TOC 0'	8.6 - 10 ppg WBM
	13.375" 54.5# J-55 BTC 1,191'			
12.25"	Salado 1,506'			
	Tansill 3,234'			
	Lamar 5,033'			
	Bell Canyon 5,068'			
	9.625" 40# L-80HC BTC 5,083'		1375 Sacks TOC 0'	10 - 11.5 ppg Brine
8.75"	Brushy Canyon 7,111'			
	Bone Spring Lime 8,336'			
	First Bone Spring 9,712'			
	Second Bone Spring 10,271'			
	Third Bone Spring Upper 10,858'			
	Third Bone Spring 11,456'			
	Wolfcamp 11,720'			
	7.625" 29.7#P-110HC FJM 11,878'		378 Sacks TOC 4583'	9.5 - 10.5 Cut Brine
11,878'	Wolfcamp B 12,088'			
	5.5" 20# P-110CYHP TMK UP SF TORQ 22,822'			
	Target Wolfcamp B 12450 TVD // 22822 MD			
6.75"	Pilot Hole			
	2.875" 7.9# L-80 EUE 13,600'			
		Triple Combo, CMR, FMI	980 Sacks TOC 11378'	11.5 - 12.5 ppg OBM
			310 Sacks TOC 11878'	11.5 - 14 ppg OBM
			5% Excess	

Casing Design and Safety Factor Check

Casing Specifications						
Segment	Hole ID	Depth	OD	Weight	Grade	Coupling
Surface	17.5	1,191'	13.375	54.5	J-55	BTC
Int #1	12.25	5,083'	9.625	40	HCL-80	BTC
Int #2	8.75	11,878'	7.625	29.7	HCP-110	FJM
Prod Segment A	6.75	11,878'	5.5	20	CYHP-110	TMK UPSF
Prod Segment B	6.75	22,822'	5.5	20	CYHP-110	TMK UPSF

Check Surface Casing				
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
14.38	853	909	1,130	2,730
Safety Factors				
1.56	13.15	14.00	1.83	0.90
Check Int #1 Casing				
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
10.625	916	1042	4230	5750
Safety Factors				
0.81	4.51	5.12	1.39	0.89
Check Int #2 Casing				
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
7.625	940	558	6700	9460
Safety Factors				
0.56	2.66	1.84	1.03	1.17
Check Prod Casing, Segment A				
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
5.777	728	655	12780	14360
Safety Factors				
0.49	2.92	2.63	1.66	1.78
Check Prod Casing, Segment B				
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
5.777	728	655	12780	14360
Safety Factors				
0.49	63.64	57.26	1.58	1.78

SeAH

9.625"

40#

.395"

SEAH-80 HIGH COLLAPSE

(SEAH-80 IS A NON HEAT TREATED PRODUCT)

Dimensions (Nominal)

Outside Diameter	9.625	in.
Wall	0.395	in.
Inside Diameter	8.835	in.
Drift	8.750	in.
Weight, T&C	40.000	lbs./ft.
Weight, PE	38.970	lbs./ft.

Performance Properties

Collapse	4100	psi
Internal Yield Pressure at Minimum Yield		
PE	5750	psi
LTC	5750	psi
BTC	5750	psi
Yield Strength, Pipe Body	916	1000 lbs.
Joint Strength		
LTC	717	1000 lbs.
BTC	915	1000 lbs.

Note: SeAH Steel has produced this specification sheet for general information only. SeAH does not assume liability or responsibility for any loss or injury resulting from the use of information or data contained herein. All applications for the material described are at the customer's own risk and responsibility.



Ameredeve B, LLC

Wellbore Schematic

Well: Golden Bell Fed Com 26-36-06 125H
SHL: Sec. 31 25S-36E 200' FSL & 2330' FEL
BHL: Sec. 7 26S-36E 200' FSL & 2318' FEL
 Lea, NM
Wellhead: A - 13-5/8" 5M x 13-5/8" SOW
 B - 13-5/8" 5M x 13-5/8" 10M
 C - 13-5/8" 10M x 13-5/8" 10M
 Tubing Spool - 5-1/8" 15M x 13-3/8" 10M
Xmas Tree: 2-9/16" 10M
Tubing: 2-7/8" L-80 6.5# 8rd EUE

Co. Well ID: xxxxx
AFE No.: xxxx-xxx
API No.: xxxxxxxxxxxx
GL: 3,014'
Field: Delaware_WCB
Objective: Wolfcamp B
TVD: 12,450'
MD: 22,822'
Rig: TBD
E-Mail: Wellsite2@ameredeve.com

Hole Size	Formation Tops	Logs	Cement	Mud Weight
17.5"	Rustler 1,066'		935 Sacks	8.6 - 10 ppg WBM
	13.375" 54.5# J-55 BTC 1,191'		TOC 0'	100% Excess
12.25"	Salado 1,506'			
	Tansill 3,234'			
	Lamar 5,033'			
	Bell Canyon 5,068'			
	9.625" 40# L-80HC BTC 5,083'		1375 Sacks	10 - 11.5 ppg Brine
			TOC 0'	50% Excess
8.75"	Brushy Canyon 7,111'			
	Bone Spring Lime 8,336'			
	First Bone Spring 9,712'			
	Second Bone Spring 10,271'			
	Third Bone Spring Upper 10,858'			
	Third Bone Spring 11,456'			
	Wolfcamp 11,720'			
	7.625" 29.7#P-110HC FJM 11,878'		378 Sacks	9.5 - 10.5 Cut Brine
			TOC 4583'	25% Excess
11,878'	Wolfcamp B 12,088'			
	5.5" 20# P-110CYHP TMK UP SF TORQ 22,822'			
	Target Wolfcamp B 12450 TVD // 22822 MD			
6.75"	Pilot Hole			
	2.875" 7.9# L-80 EUE 13,600'			
		Triple Combo, CMR, FMI	980 Sacks	11.5 - 12.5 ppg OBM
			TOC 11378'	25% Excess
		Triple Combo, CMR, FMI	310 Sacks	11.5 - 14 ppg OBM
			TOC 11878'	5% Excess

Casing Design and Safety Factor Check

Casing Specifications						
Segment	Hole ID	Depth	OD	Weight	Grade	Coupling
Surface	17.5	1,191'	13.375	54.5	J-55	BTC
Int #1	12.25	5,083'	9.625	40	HCL-80	BTC
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Prod Segment B	6.75	22,822'	5.5	20	CYHP-110	TMK UPSF

Check Surface Casing				
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
14.38	853	909	1,130	2,730
Safety Factors				
1.56	13.15	14.00	1.83	0.90
Check Int #1 Casing				
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
10.625	916	1042	4230	5750
Safety Factors				
0.81	4.51	5.12	1.39	0.89
Check Int #2 Casing				
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
7.625	940	558	6700	9460
Safety Factors				
0.56	2.66	1.84	1.03	1.17
Check Prod Casing, Segment A				
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
5.777	728	655	12780	14360
Safety Factors				
0.49	2.92	2.63	1.66	1.78
Check Prod Casing, Segment B				
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
5.777	728	655	12780	14360
Safety Factors				
0.49	63.64	57.26	1.58	1.78

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Hole Size	Formation Tops	Logs	Cement	Mud Weight
17.5"	Rustler 1,066' 13.375" 54.5# J-55 BTC 1,191'	935 Sacks TOC 0'	100% Excess	8.6 - 10 ppg WBM
12.25"	Salado 1,506' Tansill 3,234' Lamar 5,033' Bell Canyon 5,068' 9.625" 40# L-80HC BTC 5,083'	1375 Sacks TOC 0'	50% Excess	10 - 11.5 ppg Brine
8.75"	Brushy Canyon 7,111' Bone Spring Lime 8,336' First Bone Spring 9,712' Second Bone Spring 10,271' Third Bone Spring Upper 10,858' Third Bone Spring 11,456' Wolfcamp 11,720' 7.625" 29.7#P-110HC FJM 11,878'	Triple Combo 378 Sacks TOC 4583'	25% Excess	9.5 - 10.5 Cut Brine
11,878'	Wolfcamp B 12,088' 5.5" 20# P-110CYHP TMK UP SF TORQ 22,822' Target Wolfcamp B 12450 TVD // 22822 MD	Triple Combo, CMR, FMI 980 Sacks TOC 11378'	25% Excess	11.5 - 12.5 ppg OBM
6.75"	Pilot Hole 2.875" 7.9# L-80 EUE 13,600'	Triple Combo 310 Sacks TOC 11878'	5% Excess	11.5 - 14 ppg OBM

SeAH

13-3/8" 54.50# .380 J-55

Dimensions (Nominal)

Outside Diameter	13.375	in.
Wall	0.380	in.
Inside Diameter	12.615	in.
Drift	12.459	in.

Weight, T&C	54.500	lbs/ft
Weight, PE	52.790	lbs/ft

Performance Ratings, Minimum

Collapse, PE	1130	psi
Internal Yields Pressure		
PE	2730	psi
STC	2730	PSI
BTC	2730	psi
Yield Strength, Pipe Body	853	1000 lbs
Joint Strength, STC	514	1000 lbs
Joint Strength, BTC	909	1000 lbs

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OD Cplg	Body	Joint	Collapse	Burst
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	Wolfcamp 11,720'			
	7.625" 29.7#P-110HC FJM 11,878'		378 Sacks TOC 4583'	9.5 - 10.5 Cut Brine
11,878'	Wolfcamp B 12,088'			
	5.5" 20# P-110CYHP TMK UP SF TORQ 22,822'			
	Target Wolfcamp B 12450 TVD // 22822 MD			
6.75"	Pilot Hole			
	2.875" 7.9# L-80 EUE 13,600'			
		Triple Combo, CMR, FMI	980 Sacks TOC 11378'	11.5 - 12.5 ppg OBM
			310 Sacks TOC 11878'	11.5 - 14 ppg OBM
			5% Excess	



Pressure Control Plan

Pressure Control Equipment

- Ameredev will utilize a drilling rig not capable of drilling to TD to preset Surface Casing.
- Following setting of 13-3/8" Surface Casing Ameredev will install 13-5/8 MB4 Multi Bowl Casing Head by welding on a 13-5/8 SOW x 13-5/8" 5M in combination with 13-5/8 5M x 13-5/8 10M B-Sec to Land Intm #1 and a 13-5/8 10M x 13-5/8 10M shouldered to land C-Sec to Land Intm #2 (Installation procedure witnessed and verified by a manufacturer's representative).
- Casing will be tested to 1500psi or .22 psi/ft whichever is greater for 30 minutes with <10% leak off, but will not exceed 70% of the burst rating per Onshore Order No. 2.
- Ameredev will install Dry Hole Cap and install Pressure gauges to monitor. Ameredev will Suspend Operations to Mob to Adjacent Wells and Drill Surface
- Ameredev will Mobilize Rig capable of drilling to TD. (Rig Capable of Drilling to TD will not Mobilize until all wells on Drilling Pad have reached TD and Tubing Head installed and Tested) Ameredev will install a 5M System Blowout Preventer (BOPE) with a 5M Annular Preventer and related equipment (BOPE). Full testing will be performed utilizing a full isolation test plug and limited to 5,000psi MOP of MB4 Multi Bowl Casing Head. Pressure will be held for 10 min or until provisions of test are met on all valves and rams. The 5M Annular Preventer will be tested to 50% of approved working pressure (2,500psi). Casing will be tested to 1500psi or .22 psi/ft whichever is greater for 30 minutes with <10% leak off, but will not exceed 70% of the burst rating per Onshore Order No. 2.
- Setting of 9-5/8" Intermediate #1 will be done by landing a wellhead hanger in the 13-5/8" 5M Bowl, Cementing and setting Well Head Packing seals and testing same. (Installation procedure witnessed and verified by a manufacturer's representative) Casing will be tested to 1500psi or .22 psi/ft whichever is greater for 30 minutes with <10% leak off, but will not exceed 70% of the burst rating per Onshore Order No. 2.
- Full testing will be performed utilizing a full isolation test plug and limited to 5,000psi MOP of MB4 Multi Bowl Casing Head. Pressure will be held for 10 min or until provisions of test are met on all valves and rams. The 5M Annular Preventer will be tested to 50% of approved working pressure (2,500psi). Casing will be tested to 1500psi or .22 psi/ft whichever is greater for 30 minutes with <10% leak off, but will not exceed 70% of the burst rating per Onshore Order No. 2.



Pressure Control Plan

- The B.O.P. will be tested within 21 days of the original test if drilling takes more time than planned.
- Ameredev requests a variance to connect the B.O.P. choke outlet to the choke manifold using a co-flex hose with a 10,000 psi working pressure that has been tested to 15,000psi and is built to API Spec 16C. Once the flex line is installed it will be tied down with safety clamps. (certifications will be sent to Carlsbad BLM Office prior to install)

QUALITY CONTROL	No.: QC-DB- 651 / 2013
	Page : 1 / 44
Hose No.: 66551, 66552, 66553, 66554	Revision : 0
	Date: 14. November 2013.
	Prepared by : <i>Scoti Linder</i>
	Appr. by: <i>[Signature]</i>

CHOKE AND KILL HOSES

id.: 3" 69 MPa x 35 ft (10,67 m)

DATA BOOK

Purchaser: H&P STOCK

Purchaser Order No.:

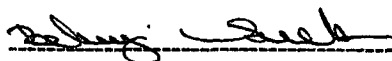
ContiTech Rubber Order No.: 537587

ContiTech Oil & Marine Corp. Order No.:
4500370505

NOT DESIGNED FOR WELL TESTING

CONTENT

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1. API QMS Certificate (No.: 0760)	3.
2. American Petroleum Institute Certificate of Authority To Use the Official API Monogram (No.: 16C-0004)	4.
3. Quality Control Inspection and Test Certificates (No.: 1905, 1906, 1907, 1908)	5-8.
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5. Metal Parts	
5.1. Raw Material Quality Certificates (No.: TR070687, EUR-265844, 86989/13-0)	10-13.
5.2. Hardness Test Reports (No.: 561/13, 562/13)	14-15.
5.3. Ultrasonic Test Reports (No.: 513/13, 514/13, 515/13)	16-18.
5.4. NDT Examiner Certificate (Name: Tóth Ákos József)	19-20.
5.5. Welding Procedure Specification (No.: 140-71)	21-24.
5.6. Welding Procedure Qualification Record (No.: BUD 0700002/1)	25-26.
5.7. Welder's Approval Test Certificate (No.: RK1825997.R1)	27-28.
5.8. Welding Log Sheet (No.: 2013/2898)	29.
5.9. Visual Examination Record (No.: 813/13)	30.
5.10. NDT Examiner Certificate (Name: Kis Gábor Balázs)	31-32.
5.11. Radiographic Test Certificates (No.: 2431/13, 2430/13)	33-34.
5.12. NDT Examiner Certificate (Name: Ménesi István)	35-36.
5.13. MP Examination Record (No.: 1222/13)	37.
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6. Steel Cord	
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 Contitech Rubber
 Industrial Kft.
 Quality Control Dept.
 (1)



Certificate of Registration

APIQR REGISTRATION NUMBER

0760

This certifies that the quality management system of

**CONTITECH RUBBER INDUSTRIAL LTD.
Budapesti ut 10
Szeged
Hungary**

*has been assessed by the American Petroleum Institute Quality Registrar (APIQR®) and
found it to be in conformance with the following standard:*

ISO 9001:2008

The scope of this registration and the approved quality management system applies to the
Design and Manufacture of High Pressure Hoses

APIQR® approves the organization's justification for excluding:
No Exclusions Identified as Applicable

Effective Date: October 15, 2013
Expiration Date: October 15, 2016
Registered Since: October 15, 2007

W. Dan Whittaker
Manager of Operations, APIQR

Accredited by Member of
the International
Accreditation Forum
Multilateral Recognition
Arrangement for Quality
Management Systems



This certificate is valid for the period specified herein. The registered organization must continually meet all requirements of APIQR's Registration Program and the requirements of the Registration Agreement. Registration is maintained and regularly monitored through annual full system audits. Further clarifications regarding the scope of this certificate and the applicability of ISO 9001 standard requirements may be obtained by consulting the registered organization. This certificate has been issued from APIQR offices located at 1220 I Street, N.W., Washington, D.C. 20005-4070, U.S.A. It is the property of APIQR, and must be returned upon request. To verify the authenticity of this certificate, go to www.apiqr.com/certificate.



Certificate of Authority to use the Official API Monogram

License Number: 16C-0004

ORIGINAL

The American Petroleum Institute hereby grants to

CONTITECH RUBBER INDUSTRIAL LTD.

Budapesti ut 10

Szeged

Hungary

the right to use the Official API Monogram® on manufactured products under the conditions in the official publications of the American Petroleum Institute entitled API Spec Q1® and API Spec 16C and in accordance with the provisions of the License Agreement.

In all cases where the Official API Monogram is applied, the API Monogram should be used in conjunction with this certificate number: 16C-0004

The American Petroleum Institute reserves the right to revoke this authorization to use the Official API Monogram for any reason satisfactory to the Board or Directors of the American Petroleum Institute.

The scope of this license includes the following product: Flexible Choke and Kill Lines

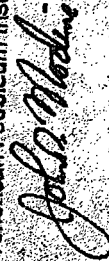
QMS Exclusions: No Exclusions Identified as Applicable

Effective Date: OCTOBER 15, 2013

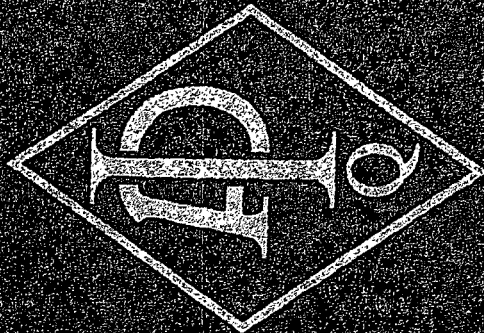
Expiration Date: OCTOBER 15, 2016

To verify the authenticity of this license, go to www.api.org/composlist

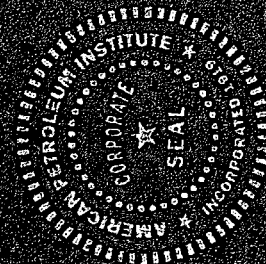
American Petroleum Institute



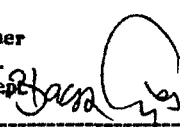
Director of Global Industry Services



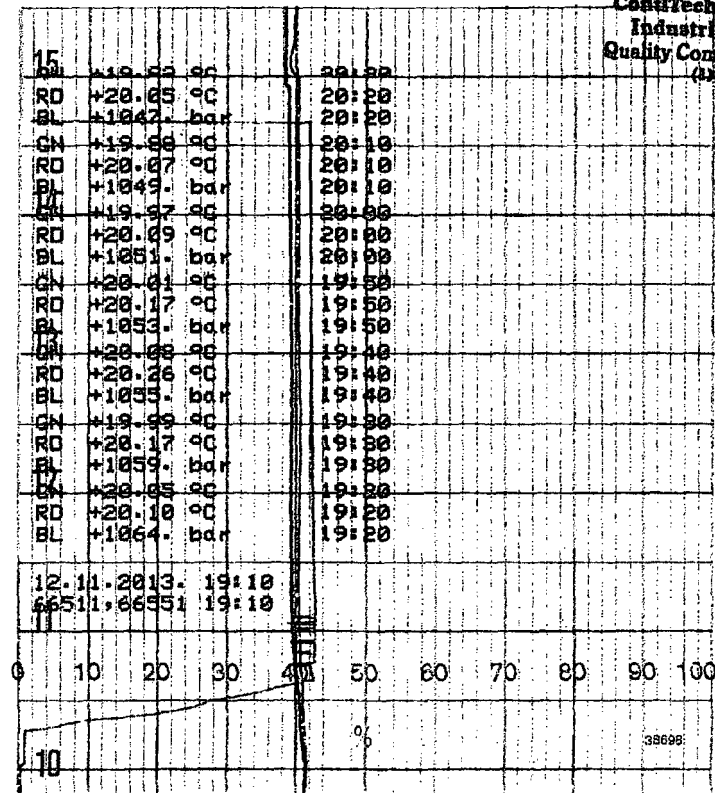
**American
Petroleum
Institute**



201311

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 1905	
PURCHASER: ContiTech Oil & Marine Corp.				P.O. N°: 4500370505	
CONTITECH RUBBER order N°: 537587		HOSE TYPE: 3" ID		Choke and Kill Hose	
HOSE SERIAL N°: 66551		NOMINAL / ACTUAL LENGTH: 10,67 m / 10,75 m			
W.P. 68,9 MPa 10000 psi		T.P. 103,4 MPa 15000 psi		Duration: 60 min.	
Pressure test with water at ambient temperature See attachment. (1 page) ↑ 10 mm = 10 Min. → 10 mm = 25 MPa					
COUPLINGS Type		Serial N°		Quality	
3" coupling with		8084 8083		AISI 4130	
4 1/16" 10K API Flange end				AISI 4130	
				Heat N°	
				24613	
				034939	
NOT DESIGNED FOR WELL TESTING				API Spec 16 C	
				Temperature rate:"B"	
All metal parts are flawless					
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.					
COUNTRY OF ORIGIN HUNGARY/EU					
Date:		Inspector		Quality Control	
13. November 2013.				ContiTech Rubber Industrial Kft. Quality Control Dept.  	

Yan
ContiTech Rubber
Industrial Kft.
Quality Control Dept.
(2)



QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 1906	
PURCHASER: ContiTech Oil & Marine Corp.				P.O. N°: 4500370505	
CONTITECH RUBBER order N°: 537587		HOSE TYPE: 3" ID		Choke and Kill Hose	
HOSE SERIAL N°: 66552		NOMINAL / ACTUAL LENGTH: 10,67 m / 10,73 m			
W.P. 68,9 MPa 10000 psi		T.P. 103,4 MPa 15000 psi		Duration: 60 min.	
Pressure test with water at ambient temperature See attachment. (1 page) ↑ 10 mm = 10 Min. → 10 mm = 25 MPa					
COUPLINGS Type		Serial N°		Quality	
3" coupling with		8088 8085		AISI 4130	
4 1/16" 10K API Flange end				AISI 4130	
				Heat N°	
				24613	
				034939	
NOT DESIGNED FOR WELL TESTING				API Spec 16 C	
				Temperature rate:"B"	
All metal parts are flawless					
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
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COUNTRY OF ORIGIN HUNGARY/EU					
Date:		Inspector		Quality Control	
13. November 2013.				ContiTech Rubber Industrial Kft. Quality Control Dept. 	

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 1907	
PURCHASER: ContiTech Oil & Marine Corp.				P.O. N°: 4500370505	
CONTITECH RUBBER order N°: 537587		HOSE TYPE: 3" ID		Choke and Kill Hose	
HOSE SERIAL N°: 66553		NOMINAL / ACTUAL LENGTH: 10,67 m / 10,745 m			
W.P. 68,9 MPa 10000 psi		T.P. 103,4 MPa 15000 psi		Duration: 60 min.	
Pressure test with water at ambient temperature See attachment. (1 page) ↑ 10 mm = 10 Min. → 10 mm = 25 MPa					
COUPLINGS Type		Serial N°		Quality	
3" coupling with		8089 8087		AISI 4130	
4 1/16" 10K API Flange end				AISI 4130	
				23171 24613	
				034939	
NOT DESIGNED FOR WELL TESTING				API Spec 16 C	
				Temperature rate:"B"	
All metal parts are flawless					
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.					
COUNTRY OF ORIGIN HUNGARY/EU					
Date:		Inspector		Quality Control	
13. November 2013.				ContiTech Rubber Industrial Kft. Quality Control Dept. <i>[Signature]</i> <i>[Signature]</i> <i>[Signature]</i>	

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE		CERT. N°: 1908	
PURCHASER: ContiTech Oil & Marine Corp.		P.O. N°: 4500370505	
CONTITECH RUBBER order N°: 537587		HOSE TYPE: 3" ID Choke and Kill Hose	
HOSE SERIAL N°: 66554		NOMINAL / ACTUAL LENGTH: 10,67 m / 10,71 m	
W.P. 68,9 MPa 10000 psi		T.P. 103,4 MPa 15000 psi Duration: 60 min.	
Pressure test with water at ambient temperature See attachment. (1 page) ↑ 10 mm = 10 Min. → 10 mm = 25 MPa			
COUPLINGS Type	Serial N°	Quality	Heat N°
3" coupling with	8090 8086	AISI 4130	23171 24613
4 1/16" 10K API Flange end		AISI 4130	034939
NOT DESIGNED FOR WELL TESTING		API Spec 16 C	
		Temperature rate:"B"	
All metal parts are flawless			
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.			
STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.			
COUNTRY OF ORIGIN HUNGARY/EU			
Date:	Inspector	Quality Control	
13. November 2013.		ContiTech Rubber Industrial Kft. Quality Control Dept. <i>[Signature]</i> <i>[Signature]</i>	



Hose Data Sheet

CRI Order No.	537587
Customer	ContiTech Oil & Marine Corp.
Customer Order No	4500370505
Item No.	1
Hose Type	Flexible Hose
Standard	API SPEC 16 C
Inside dia in inches	3
Length	35 ft
Type of coupling one end	FLANGE 4.1/16" 10KPSI API SPEC 6A TYPE 6BX FLANGE C/W BX155STANDARD RING GROOVE
Type of coupling other end	FLANGE 4.1/16" 10KPSI API SPEC 6A TYPE 6BX FLANGE C/W BX155 STANDARD RING GROOVE
H2S service NACE MR0175	Yes
Working Pressure	10 000 psi
Design Pressure	10 000 psi
Test Pressure	15 000 psi
Safety Factor	2,25
Marking	USUAL PHOENIX
Cover	NOT FIRE RESISTANT
Outside protection	St. steel outer wrap
Internal stripwound tube	No
Lining	OIL RESISTANT
Safety clamp	No
Lifting collar	No
Element C	No
Safety chain	No
Safety wire rope	No
Max.design temperature [°C]	100
Min.design temperature [°C]	-20
Min. Bend Radius operating [m]	0,90
Min. Bend Radius storage [m]	0,90
Electrical continuity	The Hose is electrically continuous
Type of packing	WOODEN CRATE ISPM-15

Body

8083-8088

TM
steels

3451-3466

42 0516 0045

Customer: ContiTech Rubber Industrial Kft
Order Number: 32258500
Part Number: 4205160045
Our Ref: S064201
Date: 11th February 2013
Certificate Number: TR070687 (Rev. 18/06/2013)
Approved Signatories: R M Greaves A Cocking J Jarvis A Pears S Selman

Description

CERTIFICATE OF CONFORMITY

Heat Treatment

AISI4130 BLACK ROLLED BAR, HEAT TREATED & TESTED TO 197-236 BHN, 655MPA MIN TENSILE, 517MPA MIN YIELD, 18% MIN ELONGATION, CHARPY IMPACT TESTING 27J MIN @ -30C (OR COLDER) LATERAL EXPANSION 0.38 MIN. ROLLING REDUCTION 3:1 MIN. NI 1% MAX & CE 0.82 MAX, TESTS MAY BE TAKEN FROM A 4" SQR QTC AS PER API 6A/PSL 3 QTC SIZE. MECHANICAL TEST SPECIMEN TO ASTM A370 NACE MR0175/ISO15156 APPLIES

APPROX 20 TONNES 210 MM DIA

CERTS TO EN10204 3.1

HARDENED FROM 860°C FOR 5:30 HOURS (WATER QUENCH)
TEMPERED AT 670°C FOR 10 HOURS (AIR COOL)
WATER TEMPERATURE BEFORE QUENCH, 28°C. AFTER, 35°C.
TEMP. MEASUREMENT, FURNACE ATMOSPHERE THERMOCOUPLE
COMPONENT HARDNESS E10 - 211 HBW10/3000
TEST COUPON - 4" SQ X 8" LONG, TESTED AT 1/4 T LOCATION
REDUCTION RATIO - 6.2
REDUCTION RATIO & HT APPLY TO BOTH JOB & TEST PIECE
FURNACE CALIBRATION: API6A 20th ed, annex M
C/E = 0.683

CAST 24613

C	Si	Mn	S	P	Ni	Cr	Mo	Al	Cu	Sn	Nb
0.3200	0.2590	0.5680	0.0090	0.0100	0.1660	1.0560	0.2350	0.0200	0.1420	0.0070	0.0010
V	Ta	Ti	Nb+Ta	Co	N	B	W	Ce	Fa	As	Sb
0.0010		0.0010			0.0079	0.0001					
Pb	Ca	H (ppm)	CEV								
		1.20	0.69								

TEST SPECIFICATION 517 N/mm2 MIN YIELD

Temperature	Re	Rp 0.2	Rm	A %	Z %	Impact	Temp.	Hardness
RT		517.000						
	N/mm2	N/mm2	N/mm2	%				

TEST RESULTS

Test Number	Dir./Temp.	Re	Rp	Rm	A %	Z %	Joules	Charpy Direction
ST22561N	20.0°C		524.000	698.000	27.80	67.70	KCV -48°C 80 50 78	LONG
Specimen Ø 12.500mm							KCV -60°C 50 50 46	LONG
							% Shear Surface	
							62.0% 52.0% 80.0%	
							Lateral Expansion (mm)	
							0.840 0.740 1.020	LONG

For and on Behalf of TM Steels Ltd.

A Cocking

ContiTech Rubber
Industrial Kft.
CERTIFICATE
ACCEPTABLE
QC INSPECTOR
DATE: 14.06.21.

TM Steels Ltd
Fairwood Way
Fairwood Road
Chesterfield
S41 9RA

Steel for the Oil and Engineering Industries
Machining and Boring Facilities

Tel +44 (0)1246 266312
Sales Fax +44 (0)1246 266313
Production Fax +44 (0)1246 266841
email: sales@tmsteels.co.uk

Co Reg No: 3523526 Vat No: GB 706 2614 57



Carbrook Street
Sheffield S9 2JN
Telephone: +44 114 244 6711
Facsimile: +44 114 244 7469



Cert No. 85293

Results quoted only refer to the items tested.

Material Specification		AISI4130	
Heat Treatment Spec		197-237BHN	Test Spec 517N/MM2MIN.YLD
Melt Practice		EFVD	Production Method FORGED
Heat Treatment	Temp(°C)	Soak	Coolant
HARDEN	860	3 HRS	WATER QUENCH
TEMPER	850	4 HRS	TABLE COOL
Charge Ref.		Batch	
SHF-158284		0912091308	
Init		Max(°C)	
20		30	
Temp recorded using		CONTACT THERMOCOUPLE	
Nature of T/P		Separate	
Qtc size		4inch SQ X 6inch LONG	
Req. Min/Max		Achieved	
Hardness on T/P		197 237 HBW	229 229 HBW
Hardness on Material		197 237 HBW	218 235 HBW

Tensile -		Impacts -	
Location	Direction	Rp 0.20%	Rm
1/4T	LONGITUDINAL	517 Min	655 to 800
Results (N/mm2)		580	785
Results			

Corrosion		Microstructure	
Pitting Resistance	Fertile		
Carbon Equivalent	.871	Grain Size	Min 6 Max 6
C	Si	Mn	P
0.2940	0.2920	0.5370	0.0110
S	Cr	Mo	Ni
0.0050	1.0620	0.2290	0.1860
Cu			
0.2430			

Certs to BSEN10204:2004 3.1 NACE MR-01-75 FE = BAL REDUCTION RATIO 6.5:1		Contitech Rubber Industrial Kft. CERTIFICATE ACCEPTABLE QC INSPECTOR DATE: 12.10.01	All furnace Calibration conforms to API6A 20th Edition ANNEX M. Hardness load/penetration depth - HBW 10 diameter (mm)/3000 kgf test force per ASTM E10.
---	--	---	---

Test Certificate

Body
8089-8090

To: CONTITECH RUBBER INDUSTRIAL KFT H-8728, SZEGED, BUDAPESTI UT 10, K.1562-K.1575 HUNGARY, HUNGARY 42 0516 0045	Customer Order Number 32252183 - 01	Test Number 402483
	Customer Order Date 27Feb12	Part Number 4205160045
	Sales Order Number EUR-352087-1	Cast Number 23171
	Report Date 25Sep12	Cert Number EUR-265844
Quantity 14 Pcs 17402 Kgs 210 mm Dia		
Description AISI 4130 75KSI .2% PS API QTC		Steel Type ALLOY 4130

CONTITECH RUBBER
Industrial Kft.
No:QC-DB-651/2013
Page: 11 / 44

Names of Approved Signatories : S.Marted G.Smith S.Suter P.Rogers M.Brown
This report is not to be reproduced without written approval.

Signature *M. [Signature]*

HAMOR zRt.

FORGING, MACHINING, HEAT-TREATING

Flange

8083-8090

3386

4205140284

EMI-TÜV
ISO9001

H-3531 Miskolc, Kiss Ernő u. 17. Phone: 36/46/401-033 Fax: 36/46/379-199

INSPECTION CERTIFICATE

ACCEPTANCE ACCORDING EN 10204-05/3.1

Certificate No.: **86989/13-0**

Date of issue: 2013.03.27 | Hámor No.: 98-39B5263 | Order No.: 32259784/13/2

Customer: Contitech Rubber Industrial Kft.
6728 Szeged Budapesti út 10

Quality: AISI 4130/CONTI Spec.No.: API 6A PSL3 325/131 x 182

Dimension: MSO-100597-002/A/H mm

Final dim.: MSO-100597-002/A (4 1/16") Heat-treatment: Quenched & tempered

Quantity: 30 pcs | Weight: 73.0 kg/pc | Total weight: 2190.00 kg

nomination of product: Forged, machined disc

Chemical analysis %

Heat No.: **034939**

Steelmaker: CELSA Hutaostrowiec POLA

Test No.	Spec. value	C	MN	SI	P	S	CR	MO	V	Ce
	Min.									
	Max.	0.45	1.80	1.00	0.025	0.025	2.75	1.500	0.300	0.82
	Result	0.28	0.56	0.20	0.006	0.003	0.99	0.170	0.003	0.62

Mechanical properties:

Test No.	Spec. value	HB	Rp0.2	Rm	A5	KV-J
	Min.	197	MPa	MPa	%	-30°C
	Max.	238	517	655	18	27
L13314	Result	235				
	Result	238	525	662	19.50	35
						52
						82



Test bar from product.

Dimensional and visual control: passed

Ultrasonic test acc. to SEP 1921-84 spec. is satisfactory C/c

Steel making (melting) process: UHP-ASEA vacuum-treated.

NACE MR 0175/ISO 15156+API 17K + API 6A PSL3.

HB-E10, Mechanika: ASTM A370 acc.

Grade Of forging: 9.81

30 pc/series.

Executive

Hámor ZRt.
Minőség ellenőrző
Osztály

Expert

MÜ-4-10/1/96
HÁMOR ZRt.
FIALKA ECE



MISKOLC Kiss Ernő u. 17. sz. H-3531

tel:36/46/401-033

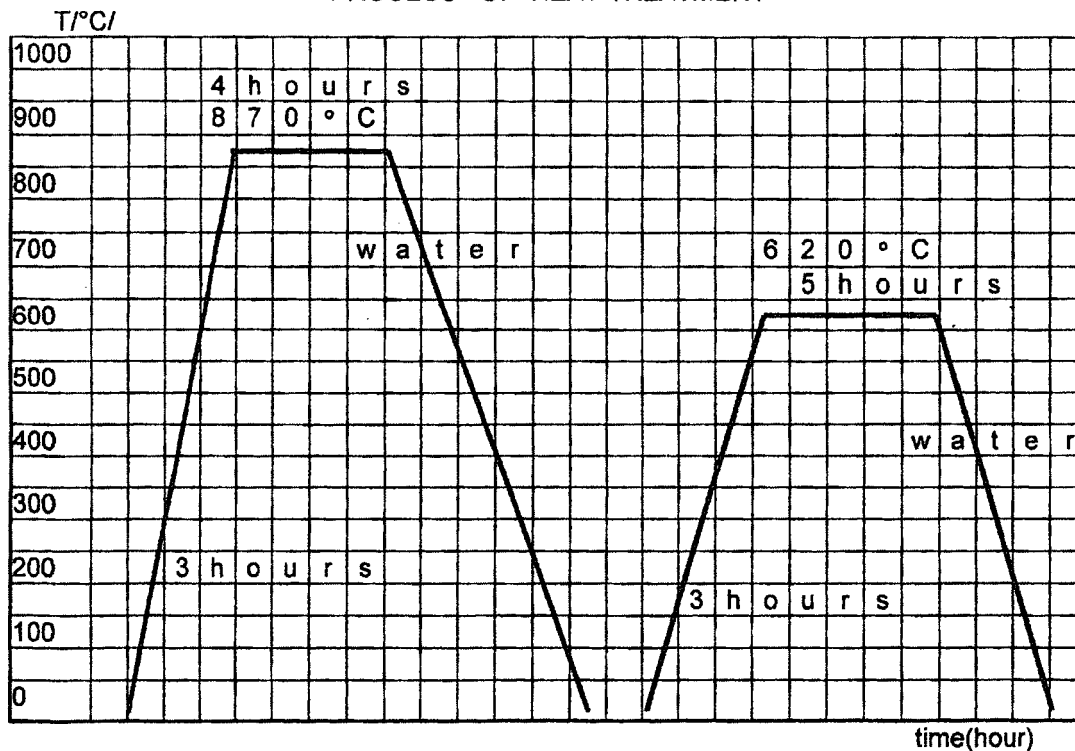
fax:36/46/379-199

e-mail: hamor@t-online.hu

PROTOCOL NUMMER: 98-39B5263

HEAT-TREATMENT PROTOCOL		
BUYER: CONTITECH RUBBER INDUSTRIAL Kft. Szeged Budapesti út 10. sz.	Order No. of Buyer: 32259784/13/2	
	Work No. of Buyer:	
PRODUCT: forged	QUANTITY: PIECE 30	No. of drawing: MSO-100597-002/A/H
MATERIAL QUALITY: AISI 4130 CONTI API 6A PSL3	Charge No.: 34939	Test No.:
HEAT-TREATMENT: quenching and tempering Typ of furnace: electric furnace Hardening medium: water		

PROCESS OF HEAT-TREATMENT



Miskolc, Hámor ZRt. 2013-03-26.

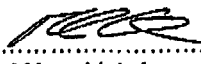
Kandó
head of heat-treatment

Hámor ZRt.
minőség ellenőrzés
osztály

Feladó : 61344

gamma controll kft

19/10/13 12:54 Lap: 2

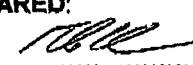
 www.gamma-controll.hu 6750 Algyó, Kálterület 0188-014. hrsz. Tel./Fax.: +36 (62) 477-420 / 01344		HARDNESS TEST REPORT		Report No: 561/13.
CLIENT: JE-ZO KFT. SZEGED, KÜLTERÜLET, 01408/22.				
TEST EQUIPMENT: TH 160-D Hardness tester				
PROCEDURE: QCP-45-R1				
DESCRIPTION OF COUPLING: coupling(s) after PWHT				
DRAWING NUMBER: MT-3121-3000				
SERIAL NUMBER: 8083; 8084; 8085; 8086				
BRINELL HARDNESS REQUIREMENT	SERIAL NO OF COUPLING	PART OF THE COUPLING	ACTUAL HARDNESS RESULT (HB)	
Min HB 197 Max HB 238	✓ 8083	body	224	
		weld	222	
		flange	236	
		connection face	238	
	✓ 8084	body	213	
		weld	208	
		flange	220	
		connection face	238	
	✓ 8085	body	214	
		weld	214	
		flange	219	
		connection face	222	
	✓ 8086	body	232	
		weld	237	
		flange	238	
		connection face	197	
The coupling(s) conform to API Spec 6A requirements.				
DATE: 2013. október 30.		PREPARED:  Ménési István		APPROVED: GAMMA-CONTROLL KFT. 6750 Algyó, Kálterület 0188-014. hrsz. Adószám: 11094574-2-61 www.gamma-controll.hu Ménási István

QCP-03 HB/11

Feladó : 61344

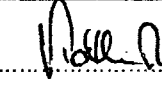
gamma kontrolli kft

19/10/13 12:54 Lap: 3

 www.gamma-control.hu 6750 Algyő, Költérület 01408/14. hrsz. Tel./Fax: +36 82517-00 / 01044		HARDNESS TEST REPORT		Report No: 562/13.
CLIENT: JE-ZO KFT. SZEGED, KÜLTÉRÜLET, 01408/22.				
TEST EQUIPMENT: TH 160-D Hardness tester				
PROCEDURE: QCP-45-R1				
DESCRIPTION OF COUPLING: coupling(s) after PWHT				
DRAWING NUMBER: MT-3121-3000				
SERIAL NUMBER: 8087; 8088; 8089; 8090				
BRINELL HARDNESS REQUIREMENT	SERIAL NO OF COUPLING	PART OF THE COUPLING	ACTUAL HARDNESS RESULT (HB)	
Min HB 197 Max HB 238	✓ 8087	body	213	
		weld	216	
		flange	220	
		connection face	225	
	✓ 8088	body	229	
		weld	212	
		flange	223	
		connection face	213	
	✓ 8089	body	219	
		weld	229	
		flange	231	
		connection face	238	
	✓ 8090	body	207	
		weld	210	
		flange	226	
		connection face	234	
The coupling(s) conform to API Spec 6A requirements.				
DATE: 2013. október 30.		PREPARED:  Ménési István		APPROVED: GAMMA-CONTROL KFT. 6750 Algyő, Költérület 01408/14. hrsz. Adószám: 11054614-2-06 www.gamma-control.hu Varga Miklós

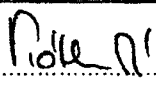
QCP-03 HB/11

 GAMMA-CONTROL www.gamma-control.hu 6750 Algyő, Kültarókat 01884/14. hrsz. Tel./Fax.: +36 62/517-400 / 61344 A NAT által NAT-1-1140/2010 számon akkreditált vizsgálólaboratórium	ULTRAHANG VIZSGÁLATI JEGYZŐKÖNYV ULTRASONIC EXAMINATION REPORT	Vizsgálati szám: Report No.: 513/13
--	--	--

Vizsgálat tárgya / Object of test		Coupling (Body)	
Gyártó Manufacturer		Megrendelő Customer	JE-ZO Kft. Szeged
Gyáriszám Serial-No.		Rendelési szám Order-No.	---
Azonosító jel Identification	8083-8088	Követelmény Requirement	ASTM A388
Geometria kialakítás / Rajzsám Geometric configuration / Drawing-No.	MT-3121-3000 ø200xø70x491	Vizsgálati hőkezelés Test heat treatment	előtt prior
Anyagminőség Material	AISI 4130 /	Letapogatási irányok Direction of scanning	axiális és radiális
Adagszám Heat-No.	24613 /		
Vizsgálati felület állapota Surface condition	forgácsolt machined	Vizsgálati terjedelem Extent of Test	100%
Vizsgált darabszám Testing pieces	6 db		
Vizsgálati adatok / Examination data			
Készülék típusa Type of US-equipment	USM25	Készülék gyári száma Serial-No. Of US-equipment	7875f
Vizsgálófeje(ek) Searc unit(s)	SEB-2, SEB4H	Frekvencia(k) Frequency(ies)	2 MHz 4 MHz MHz MHz
Kalibrációs blokk Calibration standard identification	ET1,ET2	Erősítés(ek) Gain	axiálisan 18 dB dB dB radiálisan 6 dB
Csatoló közeg Couplant	olaj oil	Hanggyengülés Attenuation	dB/m
Értékelés / észlelt kijelzések / Evaluation / recordable indications			
Értékelés Evaluation	X	megfelelő satisfactory	nem megfelelő / not acceptable
Megjegyzés(ek) Remark(s)			
Hely / kelt Place / date	 Vizsgálatot végezte Tested by Tóth Ákos UT20103090307		GAMMA-CONTROL KFT. 6750 Algyő, Kültarókat 01884/14. hrsz. Adószám: 11094614-2-06..... www.gamma-control.hu Tel.: 06-30-218-2640 Approved by Benkő Péter - Felelős vezetőh.

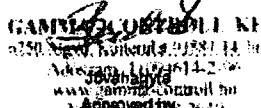
Ez a jegyzőkönyv részleteiben nem másolható! / Copying details is prohibited!

 GAMMA-CONTROL KFT. www.gamma-control.hu 6750 Algyő, köfűkert 01884/14. hrsz. Tel./Fax.: +36 82/517-400 / 81344 A NAT által NAT-1-1140/2010 számon akkreditált vizsgálólaboratórium	ULTRAHANG VIZSGÁLATI JEGYZŐKÖNYV ULTRASONIC EXAMINATION REPORT	Vizsgálati szám: Report No.: 514/13
--	--	--

Vizsgálat tárgya / Object of test		Coupling (Body)	
Gyártó Manufacturer	Megrendelő Customer	JE-ZO Kft. Szeged	
Gyáriszám Serial-No.	Rendelési szám Order-No.	---	
Azonosító jel Identification	Követelmény Requirement	ASTM A388	
Geometria kialakítás / Rajzsám Geometric configuration / Drawing-No.	Vizsgálati hőkezelés Test heat treatment	előtt prior	
MT-3121-3000 ø200xø70x491	Letapogatási irányok Direction of scanning	axiális és radiális	
Anyagminőség Material	Adagszám Heat-No.	23171 /	
AISI 4130 /	Vizsgálati felület állapota Surface condition	forgácsozott machined	
Vizsgált darabszám Testing pieces	Vizsgálati terjedelem Extent of Test	2 db 100%	
Vizsgálati adatok / Examination data			
Készülék típusa Type of US-equipment	Készülék gyári száma Serial-No. Of US-equipment	USM25 7875f	
Vizsgálófeje(ek) Searc unit(s)	Frekvencia(k) Frequency(ies)	SEB-2, SEB4H 2 MHz 4 MHz MHz MHz	
Kalibrációs blokk Calibration standard identification	Erősítés(ek) Gain	ET1,ET2 axiálisan 18 dB dB dB radiálisan 6 dB	
Csatoló közeg Couplant	Hanggyengülés Attenuation	olaj oil dB/m	
Értékelés / észlelt kijelzések / Evaluation / recordable indications			
Értékelés Evaluation	X	megfelelő satisfactory	nem megfelelő / not acceptable
Megjegyzés(ek) Remark(s)			
Hely / kelt Place / date	 Vizsgálatot végezte Tested by Tóth Ákos UT20103090307		GAMMA-CONTROL KFT. 6750 Algyő, köfűkert 01884/14. hrsz. Adatszám: 2094614-2-06 www.gamma-control.hu Tel.: +36 82/517-2640 Approved by Benkő Péter - Felelős vezető.

Ez a jegyzőkönyv részleteiben nem másolható! / Copying details is prohibited!

 GAMMA-CONTROLL www.gamma-controll.hu 6750 Algyő, Kőrösi Cs. Sándor út 14. sz. Tel./Fax.: +36 62-517-400 / 61344 A NNT 7/2012. Nkt. 7-14(4/2012) sz. szerinti aláírási eljárással	ULTRAHANG VIZSGÁLATI JEGYZŐKÖNYV ULTRASONIC EXAMINATION REPORT	Vizsgálati szám: Report No.: 515/13

Vizsgálat tárgya / Object of test				Flange	
Gyártó Manufacturer		Megrendelő Customer JE-ZO Kft. Szeged			
Gyártási szám Serial-No.		Rendelési szám Order-No. ---			
Azonosító jel Identification 8083-8090		Követelmény Requirement ASTM A388			
Geometria kialakítás / Rajzszám Geometric configuration / Drawing-No. MT-3121-3000 ø315x85xø190x94xø70		Vizsgálat hőkezelés Test heat treatment előtt prior			
Anyagminőség Material AISI 4130 /		Lepogatólási irányok Direction of scanning axiális és radiális			
Adékszám Heat-No. 034939 /					
Vizsgálati felület állapota Surface condition forgácsolt machined		Vizsgálati terjedelem Exted of Test 100%			
Vizsgált darabszám Testing pieces 8 db					
Vizsgálati adatok / Examination data					
Készülék típusa Type of US-equipment USM25		Készülék gyári száma Serial-No. Of US-equipment 7875f			
Vizsgálófej(ek) Searc unit(s) SEB-2, SEB4H		Frekvencia(k) Frequency(ies) 2 MHz 4 MHz MHz MHz			
Kalibrációs blokk Calibration standard Identification ET1,ET2		Erősítés(ek) Gain axiálisan 6 dB dB dB radiálisan 6 dB			
Csatló közeg Couplant olaj oil		Hanggyengülés Attenuation dB/m			
Értékelés / észlelt kijelzések / Evaluation / recordable indications					
Értékelés Evaluation	X	megfelelő satisfactory		nem megfelelő / not acceptable	
Megjegyzés(ek) Remark(s)					
Hely / kelt Place / date Gamma-Controll Kft. Algyő, 2013.10.17		 Vizsgálatot végezte Tested by Tóth Ákos UT20103090307		 Jóváhagyta Approved by: Benkő Péter - Felelős vezető	

Ez a jegyzőkönyv részleteiben nem másolható! / Copying details is prohibited!



MAGYAR HEGESZTÉSTECHNIKAI ÉS ANYAGVIZSGÁLATI EGYESÜLÉS
(HUNGARIAN ASSOCIATION OF WELDING TECHNOLOGY AND MATERIAL TESTING)
(Certification Body)

RONCSOLÁSMENTES ANYAGVIZSGÁLÓ TANÚSÍTVÁNY
(Certificate of NDT personnel)

A tanúsított neve:
(The name and forename of
the certificated individual):
Születési hely/ideje:
(Place and date of birth):

Tóth Ákos József

**Hódmezővásárhely, 1987. 09.
19.**

Azonosító szám: **UT20103090307**
(Identification No.):

A tanúsított személy aláírása
(The signature of the certificated individual)

Vizsgálati eljárás(ok):
(The NDT method(s)):

Ultrahangos anyagvizsgálat
(**Ultrasonic testing**)

Ipari terület:
(Industrial sector):

Készülékek, berendezések, létesítmények vizsgálata EM
(**Pre and in-service testing of equipment, plant and structure**)

Termék terület(ek):
(Product sector(s)):

(c)+Fv, (w)+Fv, (wp)+Fv, (f)+Fv

A minősítés fokozata:
(The level of certification):

UT2

A tanúsítás és kiadásának időpontja:
(The date of certification and its issue):

Budapest, 2009. 12. 07.

A tanúsítás érvényes:
(The date upon which certification expires):

2014. 12. 06.

Tanúsító Testület nevében
(On behalf of certifying body)

Az ipari és/vagy termék terület érvényesség kiterjesztve:
(The industrial and/or product sector has been expanded to):

9/2001 GM, 97/23 EC

Dátum (Date):

2009. 12. 07.

A tanúsítás érvényessége

(Renewed the validity of the certification until (MSZ EN 473 9.))

-ig megújítva (MSZ EN 473 9.):

Dátum (Date):

Tanúsító Testület nevében
(On behalf of certification body)



A Magyar Hegesztéstechnikai és Anyagvizsgálati Egyesülés, mint a Nemzeti Akkreditáló Testület által a NAT-5-0013/2006 számon akkreditált tanúsító testület az MSZ EN 473 számú szabvány szerint eredményes vizsgája alapján a nevezett személyt tanúsítja a fentiek szerint:
(The Hungarian Association of Welding Technology and Material Testing as an accredited by the National Accreditation Board (under No. NAT-5-0013/2006) certification body, on the basis of his/her successful examination under the standard MSZ EN 473, hereby certifies the named individual according to the above.)

* c - öntvények (castings); f - kovácsolt termékek (forgings); w - hegesztett kötések-termékek (welded products); t - csövek (tubes); wp - alakított termékek (wrought products); p - műanyag termékek (plastics products); k - kompozitok (composites products).

UT20103090307



MAGYAR HEGESZTÉSTECHNIKAI ÉS ANYAGVIZSGÁLATI EGYESÜLÉS
(HUNGARIAN ASSOCIATION OF WELDING TECHNOLOGY AND MATERIAL TESTING)
(Certification Body)

Meghatározzuk a tanúsítvány tulajdonosát, hogy vizsgálatokat végezzen és azok eredményéért felelősséget vállaljon.
(MSZ EN 473 3.21)

(The holder of this certificate has been authorised to perform tests and take responsibility for the test results. (MSZ EN 473 3.21))

GAMMA - CONTROLL KFT

6722 Szeged, Gyertyános u. 14-16/A

Adószám: 11094514-2-06

Munkáltató aláírása:
(Signature of the employer:)

OTP Bank: 1173800920406154

www.gamma-controll.hu

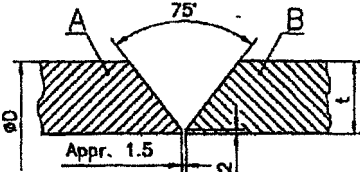
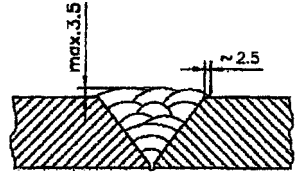
Tel.: 06 30 218-2640

Dátum: 2009.12.07.
(Date:)

Folyamatos munkavégzés igazolása (MSZ EN 473 9.)
(Evidence of continued work activity (MSZ EN 473 9.))

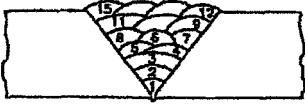
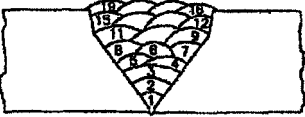
Sorsz.: (No.)	Munkáltató aláírása (Signature of the employer)	GAMMA-CONTROLL Anyagvizsgáló és Minőségellenőrző Kft.	Dátum (Date)
1.		GAMMA-CONTROLL	2010.01.04.
2.		GAMMA-CONTROLL	2011.01.06.
3.		GAMMA-CONTROLL	2012.01.09.
4.		GAMMA-CONTROLL	2013.01.09.
5.		Anyagvizsgáló és Minőségellenőrző Kft.	
6.			
7.			
8.			
9.			
10.			

Kiegészítések:
(Additional remarks:)

 PHOENIX PHOENIX RUBBER INDUSTRIAL LTD.		TECHNICAL DATA SHEET		TDS	Page
		WELDING PROCEDURE SPECIFICATION		WPS	N° 1 of 2
CLIENT IDENTITY CODE		THIS SPECIFICATION IS BASED ON ASME CODE SECTION IX		WPS N° 140-71 REV 4 SUPPORTING PQR N° BUD 0700002/1	
ITEM Qty DATA FOR ACCEPTANCE		WELDING PROCESS: GTAW-SMAW TYPES: MANUAL		PERFORMED BY: WELDER'S STAMP	
JOINTS (QW-402)		  Sequences of weld see on addendum			
JOINT DESIGN		BACKING: YES/NO		WELD SEQUENCE	
BASE METALS (QW-403)		PART „A”		PART „B”	
DRW N°					
GRADE:		WNo.: 1.7220		ASTM A 322-91: AISI 4130 / 34CrMo4 (MSZ EN 10083-1) *	
CARBON EQUIVALENT		max. C _e =		0.82	
MECHANICAL PROPERTIES:					
TENSILE STRENGTH		N/mm ² min.		655	
DUCTILITY		% min.		18	
HARDNESS		HB max.		238	
IMPACT TEST -30°C		J Average		27	
THICKNESS:		t = 5-38 mm		OUTSIDE DIAMETER : ØD = 60-280 mm	
FILLER METALS (QW-404)					
WELD MATERIAL	DIAMETER	BRAND	STANDARD	SUPPLIER	
Rod	2.4 mm	EML 5	AWS A5.18-01: ER70S-3	Böhler	
Electrode	3.2; 4.0	T-PUT NiMo 100**	AWS A 5.5-96: E 10018-D2 (mod.)	Böhler	
LAPSE BETWEEN OF PASSES		MIN./min			
POSITIONS (QW-405)		PREHEAT (QW-406)			
POSITIONS: 1G Rotated (horizontal)		PREHEAT TEMP.: 300-330 °C			
WELDING PROGRESSION: Weld flat at or near to the top		INTERPASS TEMP.: max. 350 °C			
POSITION OF FILLET		PREHEAT MAINTENANCE: Till the beginning of postweld heat treating			
OTHER		METHOD OF PREHEATING: Furnace			

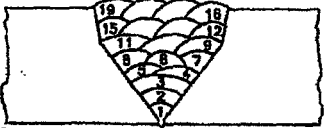
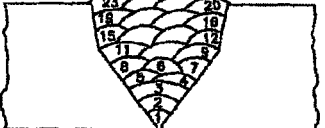
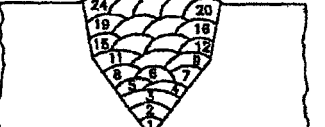
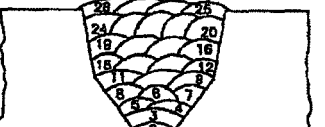
CONTINUATION OF WPS N° 140-71 Rev.4						Page N° 2 of 2	
POSTWELD HEAT TREATMENT (QW-407)				GAS (QW-408)			
HOLDING TEMP. RANG 620 +20 / -0 C°				SHIELDING GAS Argon for root			
HOLDING TEMP. TIME 4 HR				PERCENTAGE COMPOSITION (MIXTURE) 99.995 %			
HEATING RATE MAX.:							
COOLING RATE MAX.: 80 °C/HR							
LOCATION OF THERMOCOUPLE				FLOW RATE 10-12 LITRES/min.			
FURNACE ATMOSPHERE Air				GAS BACKING: Argon (for 1st and 2nd passes)			
TYPE:				FLOW RATE 7-9 Litres/min			
				TRAILING SHIELDING GAS COMP.			
ELECTRICAL CHARACTERISTICS (QW-409)						1st pass: -	
CURRENT DC						ELECTRODE POLARITY : 2nd-28th passes: +	
TUNGSTEN ELEKTRODE SIZE/TYPE: Ø3.2 mm thoriated tungsten							
MODE OF TRANSFER FOR GMAW							
ELECTRODE / WIRE FEED SPEED RANGE							
WELD LAYERS	PROCESS	FILLER METAL CLASS	DIAMETER	CURRENT TYPE POLAR.	AMP. RANGE	VOLT RANGE	HEAT INPUT (KJ/cm)
1	GTAW	EML 5	2.4 mm	-	110-130	11-12	5-8.4
2-3	SMAW	T-PUT NiMo 100	3.2 mm	+	120-140	24-26	12-19.6
4-28	SMAW	T-PUT NiMo 100	4.0 mm	+	150-170	26-30	16.2-27.5
TRAVEL SPEED RANGE 100-130 mm/min							
TECHNIQUE (QW-410)							
STRING OR WEAWE BEAD				ORIFACE OR GAS CUP SIZE Ø9mm			
INITAL/INTERPASS CLEANING: Brushing, Grinding							
EQUIPMENTS FOR WELDING:							
OTHER:							
EXAMINATION - Acc. to the acceptance instruction N° MIO-FB 2 Based on ASME IX.				REMARKS - * Formerly CMo3 (MSZ 61) - ** Ni content less than 1 % - Before welding bake electrodes for 2 hours at 350 °C			
	BY	DATE	TECHNICAL DATA SHEET				HOSE TECHNICAL DEPARTMENT WPS N° 140-71 Rev.4
Desig.	Bazli	14.06.2009	WELDING PROCEDURE SPECIFICATION				
Appr.	Bazli	14.06.2009	SUBJECT: Butt weld of hose coupling for H2S service;				
Chek'd			Strenght 75K				

PHOENIX RUBBER Industrial Ltd. Hose Division	N°:	WPS 140-71 Addendum
	Revision:	4
ADDENDUM for the approved wall thickness range 5-38 mm Based on WPS 140-71 Rev.4, PQR No.: BUD 0700002/1	Page N°:	1/2
	Date:	2007-06-12
	Designed:	<i>Bauer</i>
	Checked:	
	Approval:	<i>[Signature]</i>

No.	Wall thickness [mm]	Weld layers	Electrode Ø [mm]
1.	5-7	 1 2	3,2 3,2
2.	7-9	 1 2-3	3,2 3,2
3.	9-11	 1 2-3 4-5	3,2 3,2 4,0
4.	11-13	 1 2-3 4-6	3,2 3,2 4,0
5.	13-15	 1 2-3 4-8	3,2 3,2 4,0
6.	15-18	 1 2-3 4-10	3,2 3,2 4,0
7.	18-20	 1 2-3 4-11	3,2 3,2 4,0
8.	20-22,22	 1 2-3 4-15	3,2 3,2 4,0
9.	22,2-26	 1 2-3 4-19	3,2 3,2 4,0

Remarks: - Process for layer No1 GTAW with Ø3,2 mm thoriated tungsten electrode and Ø2,4 mm Rod EML 5;
for the others: SMAW with electrode T-PUT NiMo 100

PHOENIX RUBBER Industrial Ltd.		Nº:	WPS 140-71 Addendum
ADDENDUM		Revision:	4
for the approved wall thickness range 5-38 mm Based on WPS 140-71Rev.4, PQR No.: BUD 0700002/1		Page Nº:	2/2

No.	Wall thickness [mm]	Weld layers	Electrode Ø [mm]
10.	26-29		3,2 3,2 4,0
11.	29-32		3,2 3,2 4,0
12.	32-35		3,2 3,2 4,0
13.	35-38		3,2 3,2 4,0

Remarks: - Process for layer No1 GTAW with Ø3,2 mm thoriated tungsten electrode and Ø2,4 mm wire EML 5;
for the others: SMAW with electrode T-PUT NiMo 100

Certificate no: BUD 0700002/1
Page 1 of 2



Welding Procedure Qualification Record (PQR) ASME IX Energy and Transportation

Company Name: Phoenix Rubber Gumilpari Kft. SZEGED

Procedure Qualification Record No. BUD 0700002/1

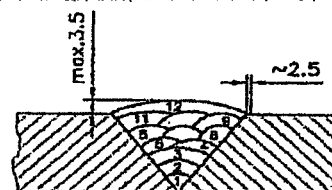
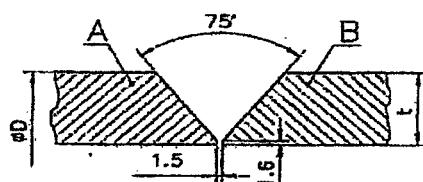
Date 28 February 2007

WPS No. 140-71

Welding Process(es) GTAW/SAW

Types (Manual, Automatic, Semi-Auto.) Manual

Joints (QW-402)



Groove Design for Test Coupon
(For combination qualifications, the deposited weld metal thickness shall be recorded for each filler metal or process used.)

Base Metals (QW-403)

Material Spec. ASTM A 322-91, AISI 4130

Type or Grade AISI 4130

P.No. AISI 4130 to P.No. AISI 4130

Thickness of Test Coupon 19 mm

Diameter of Test Coupon 72 mm

Other

Postweld Heat Treatment (QW-407)

Temperature 620 $\pm$ 20-0 °C

Time 4 hours

Other

Gas (QW-408)

	Percent Composition	
Shielding	Ar 99.95%	Flow Rate 10-12 l/min
Trailing	Ar 99.95%	7-9 l/min
Backing	Ar 99.95%	

Electrical Characteristics (QW-409)

Current	DC	
Polarity	GTAW DCEN, SMAW DCEP	
Amps.	Layer 1 120, Layer 2-3 127, Layer 4-12 136	Volts Layer 1 11-12, Layer 2-3 24-26, Layer 4-12 28-30
Tungsten Electrode Size	3.2 mm	

Other

Technique (QW-410)

Travel Speed	Layer 1-11 100-130 Layer 12 min/min
String or Weave Bead	Layer 1-11 String Layer 12 Weave

	GTAW	SMAW
Multipass or Single Pass (per side)	S	M
Single or Multiple Electrodes	S	M

Heat Input	Layer 1 6.0-8.6 KJ/cm Layer 2-3 14.1-19.8 KJ/cm Layer 4-12 18.7-28.1 KJ/cm
------------	--

Filler Metals (QW-404)

	GTAW	SMAW
SFA Specification	ER 70S-3	E 10018-G
AWS Classification	A5.18	A5.5
Filler Metal F-No.	6	4
Weld Metal Analysis A-No.	1	2
Size of Filler Metal	2.4 mm	3.2, 4.0 mm

Other

Weld Metal Thickness 3 mm 16 mm

Position (QW-405)

Position of Groove 1G rotated

Weld Progression (Uphill, Downhill)

Other

Preheat (QW-406)

Preheat Temp. 300-330 °C

Interpass Temp. max 350 °C

Other

Lloyd's Register, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register Group'. The Lloyd's Register Group assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register Group entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Certificate no: BUD 0700002/1
Page 2 of 2

				Tensile Test (QW-150)		PQR No.	BUD 0700002/1
Specimen No.	Width mm	Thickness mm	Area mm²	Ultimate Total Load kN	Ultimate Unit Stress MPa	Type of Failure & Location	
39/1	18.9	15.8			657	Base material	
39/2	18.9	15.7			664	Base material	

Guided Bend Tests (QW-160)		Results
Type and Figure No.		
180° Band roller dia. 36 mm 2+2 pcs.		Satisfactory

Toughness Tests (QW-170)							
Specimen No.	Notch Location	Specimen Size mm	Test Temp. °C	Impact Value J	% Shear	Mils	Drop Weight Break (Y/N)
39	S	10x10x55	-30	33			
39	S	10x10x55	-30	49			
39	S	10x10x55	-30	41			
39	HAZ	10x10x55	-30	38			
39	HAZ	10x10x55	-30	97			
39	HAZ	10x10x55	-30	62			

Comments:

Flare Weld Test (QW-180)

Result- Satisfactory: Yes ☐ No ☐ Penetration into Parent Metal: Yes ☐ No ☐

Macro - Results

Other Test

Type of Test Hardness test

Deposit Analysis

Other

Macro - Satisfactory
X-ray - Satisfactory

Welder's Name

Tivadar Szabo DC-II. 378258

Clock No. (BC 15)

Stamp No.

Test Conducted By:

DKG EAST Anyagvizsgalati Labor.

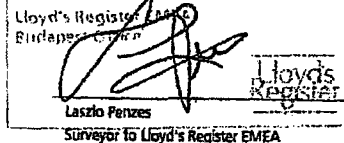
Laboratory Test No:

TMO 007-7/07 VJK 1207/2007

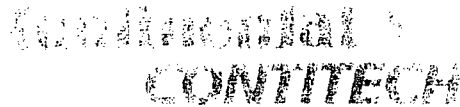
We certify that the statements in this record are correct and that the test welds were prepared, welded, and tested in accordance with the requirements of Section IX of the ASME Code.

Date issued: 28 February 2007

Manufacturer's Representative: Laszlo Bajusz
Manufacturer: Phoenix Rubber Gumipari Kft, SZEGED



A member of the Lloyd's Register Group



Fluid Technology

WELDER'S APPROVAL TEST CERTIFICATE - ASME CODE IX

Examiner or test body: ABS

Registration No.: RK1825997.R1

Designation ASME IX: GTAW / SMAW Pipe BW s19 1G

Welder's name: Tivadar Szabó (BC15)

Identification card No: 517278EA

Date and place of birth: 19. August 1949; SZEGED

		Weld test details	Range of approval	Photo (if required)
Welding process		GTAW/SMAW		
Filler metal	Type	Rod / Electrode		
	Designation	AWS 5.18: ER70S-3 AWS 5.5: E9018		
Parent metal group(s)		ASTM A 322-91; AISI 4130	ASTM A 322-91; AISI 4130	
Plate or pipe		Pipe	Pipe/Plate	
Welding position		1G	1G/Flat	Identification of test pieces:
Outside diameter (mm)		72 mm	> 25 mm	
Test piece thickness (mm)		19	Max to be welded	
Single/ both side welding		Single		WPS No.: 140-60 Rev.4
Gouging/ backing				
Joint type		Groove	Groove / Fillet	Testing standard: ASME IX
Shielding/ backing gas(es)		Argon (99,95%)		
Welding carried out, place: Szeged			Date: 29 April 2010	
			Welding Engineer: László Bajusz <i>Bajusz</i>	
Type of test	Performed and accepted	Not required		Place and date: Szeged, 18-Jun-2010 Surveyor: Péter Szabó Stamp and signature:
Visual	Accepted (Vjk-1739/10)			
Radiography	Accepted (Vjk-1739/10)			
Ultrasonic		+		
Magnetic particle		+		
Penetrant		+		
Macro		+		
Fracture		+		
Bend		+		
Additional tests		+		
See attached page(s) for prolongation by employer every 6 months				

Fluid Technology

WELDER'S APPROVAL TEST CERTIFICATE - ASME CODE IX

Examiner or test body: ABS

Registration No.: RK1825997.R1

Welder's name: Tivadar Szabó (BC15)

Identification card No.: 517278AE

Date and place of birth: 19. August 1949; SZEGED

PROLONGATION OF APPROVAL BY EMPLOYER

[illegible]

6728 Szeged, Kültérület 01408/22 hrsz.
Adószám: 13341039-2-06
Bankszámlaszám:
12067006-00127077-00100001

**WELDING LOG SHEET
HEGESZTÉSI MUNKALAP**

WLS N^o.
Szám: 2013. / 2898.
PAGE /oldal 1/1

CLIENT Megrendelő		CONTITECH RUBBER Industrial Kft.		PURCH.ORDER N ^o . Rendelés szám		32261598	
CONTRACT N ^o . Kötésszám		SPOOL/JOB N ^o . Üzemi m.szám		WPS N ^o . Heg.ut.szám		14D-71. Rev. 4. / 7	
NAME OF WEDED PARTS Heg. alkatrész megnevezése		Body + Flange		DRWG N ^o . Rajzszám		WT 3121-3000	
NAME/ N ^o . OF WELDER Hegesztő neve és száma		Szabó Tivador László. B.C. 15.		LOCATION/SHOP Munkavégzés helye		Szeged. Tőpé széle 6.	
DATE Dátum		2013. 10. 25		QUANTITY Darabszám		8	
1. MATERIAL CONTROL Anyag megfeleltetés azonosítása		SUBJECT 1 Tárgy 1		body		MATERIAL Anyag	
		SUBJECT 2 Tárgy 2		Flange		MATERIAL Anyag	
				AISI. 4130.		CAST N ^o . Adagszám	
				AISI. 4130.		CAST N ^o . Adagszám	
				800303.		1124075	
				1127750.			
2. FILLER METAL Elektroda minőség és méret		WELD LAYERS Varratszám		1.		2-3.	
		TYPE Típus		FW. 5.		NIMD. 100.	
		DIAMETER Átmérő		2.4.		3.2.	
		FILLER CAST N ^o . Elekt. adagszám		800303.		1127750.	
3. ELECTRICAL CHARACTERISTICS Elektromos adatok		TYPE POLAR Polaritás		-		+	
		VOLT (V)		12.		24.	
		AMPERE (A)		180.		140.	
				180.			
4. PRE HEAT TREATMENT OF ELECTRODES Elektroda felhasználást megelőző hőkezelése		300.		C°		8.	
5. APPLIED SHILDING GAS Alkalmazott védőgáz		TYPE Típus		Argon.		Percentage Composition Tisztaság.	
						99.95.	
						Flow Rate Áramlási seb.	
						8.	
6. HEAT TREATMENT (pre-weld) Előmelegítés		300.		C°		7. POSITION Helyzet	
						Forgatott.	
8. SPEED OF TRAVELS Hegesztési sebesség		100 ÷ 130.		mm/min		9. LAPSE BETWEEN OF PASSES Varratfelrakási szünetek	
						8.	
10. POSTWELD HEAT TREATMENT Utóhőkezelési adatok		Time Idő		240.		min	
		Temperature Hőmérséklet		620.		C°	
		Furnace atmosph. Hűtőközeg		Levegő.		Cooling rate Hűlési sebesség	
						80.	
						C°/H	
11. RADIOGRAPHIC TEST CERT. N ^o . Radiográfiai vizsg. biz. száma		2450/15, 2451/15					
REPAIR Javítás		YES/ Igen		X NO/ Nem			
		PLACE OF DEFECT Hiba helye		TYPE OF DEFECT Hiba típusa			
		METHOD OF REPAIR Javítási módszer					
VISUAL INSPECTION Szemrevételezés		Megfelelő / Satisfactory.					
REMARKS Megjegyzés		Fronius. Magic. Wave. 2600.					
Date, end of coling down time Dátum, kihűlés vége		2013. 10. 26. - 13. óra		MINOSÍTOTT HEGESZTŐ KÖZREMŰKÖDŐ TÁRSASÁG Hegesztő Szeged, Tőpé széle 6. B.C. 15 Szeged, Heller köz 1. Adószám: 13341039-2-06		INSPECTOR Ellenőrző 2013 NOV 04 DATE Dátum	

Feladó : 61344

gamma controll kft

19/10/13 12:58 Lap: 1

 GAMMA-CONTROLL www.gamma-controll.hu 6750 Algyó, Kálvária út 14. / 14. sz. sz. Tel/Fax: +36 82/517-400 / 61344 A NAT 4/01 NAT-1-114/2009 sz. rendelet szerinti vizsgálati laboratórium	SZEMREVÉTELEZÉSES VIZSGÁLATI JEGYZŐKÖNYV	Record No. Jegyzőkönyv száma:
	VISUAL EXAMINATION REPORT	813/13

Object Tárgy	Coupling welding Csatlakozó hegesztés	Serial No. Gyári szám	8083-8090
Customer Megrendelő	JE-ZO Kft. Szeged	Drawing No. Rajzszám	MT-3121-3000
Job Nr. Munkaszám	002/13	Material/Dimension Anyagminőség/méret	AISI 4130 115/77
Quantity Mennyiség	8 db	Extent of examination Vizsgálat terjedelme	100%
Requirements Követelmények	ASME code VIII/1	Heat treatment Hőkezelés	after PWHT
Written Procedure No. Vizsgálati eljárás száma	QCP-09-1	Welder Hegesztő	BC15

Visual examination / Szemrevételezéses vizsgálat

Technique Módszer	Direct visual	
Instrument Készülék		
Visual aids Segédeszközök	3x magnifying lens	

Measurement / Mérés

Equipment Készülék		
Instrument Készülék		
Surface temperature A felület hőmérséklete	20 °C	Surface condition Felület állapota
		machined
		Lighting intensity Megvilágítás
		1000lx

Test results Eredmények :	SATISFACTORY megfelelő.....8 pc(s)/db
	not accepted nem megfelelő.....0 pc(s)/db

Vizsgálat helye és ideje: Place and date of test:	Vizsgálatot végezte: Tested by:	Áttekintette és jóváhagyta: Reviewed and approved by:
Gamma-Controll Kft. Algyó, 2013.10.30. (10h)	Kis Gábor VT20103130102	GAMMA-CONTROLL KFT. 6750 Algyó, Kálvária út 14. sz. sz. Adaszék 110/4612-2-05 www.gamma-controll.hu Tel: 06-82-517-400



MAGYAR HEGESZTÉSTECHNIKAI ÉS ANYAGVIZSGÁLATI EGYESÜLÉS
(HUNGARIAN ASSOCIATION OF WELDING TECHNOLOGY AND MATERIAL TESTING)
(Certification Body)

RONCSOLÁSMENTES ANYAGVIZSGÁLÓ TANÚSÍTVÁNY
(Certificate of NDT personnel)

Azonosító szám: VT20103130102
(Identification No.):

A tanúsított neve:
(The name and forename of
the certificated individual):

Kis Gábor Balázs

Születési hely/ideje:
(Place and date of birth):

Szeged, 1980. 02. 29.

A tanúsított személy aláírása
(The signature of the certificated individual)

Vizsgálati eljárás(ok):
(The NDT method(s)):

Szemrevételezéses anyagvizsgáló
(Visual testing)

Ipari terület:
(Industrial sector):

Készülékek, berendezések, létesítmények vizsgálata EM
(Pre and in-service testing of equipment, plant and structure)

Termék terület(ek):
(Product sector(s)):

(c), (w), (wp), (f)

A minősítés fokozata:
(The level of certification):

VT2

A tanúsítás és kiadásának időpontja:
(The date of certification and its issue):

Budapest, 2013. 02. 19.

A tanúsítás érvényes:
(The date upon which certification expires):

2018. 02. 18.

Tanúsító Testület nevében
(On behalf of certifying body)

Vizsgáló
(Examiner)

Az Ipari és/vagy termék terület érvényesség kiterjesztve:
(The industrial and/or product sector has been expanded to):

Dátum (Date):

Tanúsító Testület nevében
(On behalf of certifying body)

A tanúsítás érvényessége

(Renewed the validity of the certification until (MSZ EN ISO 9712 10.))

-ig megújítva (MSZ EN ISO 9712 10.):

Dátum
(Date):

Tanúsító Testület nevében
(On behalf of certification body)

c - öntvények (castings); f - kovácsozott termékek (forgings); w - hegesztett és forrasztott termékek (welded products); t - csövek és csővezeték (pipes); wp - alakított termékek (wrought products); k - kompozit anyagok (composites products).

VT20103130102



MAGYAR HEGESZTÉSTECHNIKAI ÉS ANYAGVIZSGÁLATI EGYESÜLET
(HUNGARIAN ASSOCIATION OF WELDING TECHNOLOGY AND MATERIAL TESTING)
(Certification Body)

Meghatározzuk a tanúsítvány tulajdonosát, hogy vizsgálatokat végezzen és azok eredményéért felelősséget vállaljon.
(MSZ EN ISO 9712 3.21)

(The holder of this certificate has been authorized to perform tests and take responsibility for the test results. (MSZ EN ISO 9712 3.21))

6726 Szeged, Tűzok u. 8/A
Munkáltató aláírása: Adószám: 11094614-2-068
(Signature of the employer) Bank: 11335003-20406134
www.gamma-control.hu
Tel.: 06-34-218-3000

Dátum: 2013.02.06.
(Date)

Folyamatos munkatevékenység igazolása (MSZ EN ISO 9712 10.) (Evidence of continued work activity (MSZ EN ISO 9712 10.))			
Sorsz.: (No.)	Munkáltató aláírása (Signature of the employer)	Ph. "GAMMA-CONTROL" Anyagvizsgáló és Minőségellenőrző Kft.	Dátum (Date)
1.			2013.02.06.
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Kiegészítések:
(Additional remarks:)

A tanúsítvány a munkáltató aláírásával érvényes
(This certificate is valid with the signature of the employer.)

Feladó : 61344

gamma controll kft

19/10/13 12:54 Lap: 1

 www.gamma-control.hu 6750 Algyő, Káltertelek 01884/14. hrsz. Tel./Fax.: +36 62/17-499 / 01844 A NYIT által HAT-1-15029/13 alapján elvégzett vizsgálatokból	RADIOGRÁFIAI VIZSGÁLATI JEGYZŐKÖNYV RADIOGRAPHIC EXAMINATION REPORT	Jegyzőkönyv szám: Report No.: 2431/13 Kiállítás dátuma: Date of report: 2013.10.30

Vizsgálat tárgya:		Coupling		Megrendelő:		JE-ZO Kft. Szeged									
Object:				Client:											
Munkaszám:				Rendelési szám:											
Job No.:				Order No.:											
Rajzsám:		MT-3121-3000		Anyagminőség:		AISI 4130									
Drawing No.:				Material:											
Vizsgálati szabvány:		QCP-13-1		Vizsgálat terjedelme:		100%									
Testing standard:				Extent of testing:											
Átvételi követelmény:		ASTM E94		Hőkezelés:		After PWHT									
Acceptance criteria:				Heat treatment condition:											
Kód:		MSZ EN ISO 6520-1		Hegesztési jele:		BC15									
Code:				Welder stamp:											
Berendezés típusa:		GAMMAMAT		Képmínőségjelző típusa:		ASTM set B type									
Type of equipment:				Type of IQI:											
Sugárforrás:		Ir192		Képmínőség jelző helye:		F									
Source:				Placement of IQI:											
Sugárforrás mérete:		3x1,5mm		Előírt képmínőség:		2% (2-2T)									
Source size:				Required IQI:											
Aktivitás:		0,4 TBq		Film típusa:		FOMA R5									
Activity:				Film Type:											
Filmfeldolgozás módja:		Kézi:		Automata:		X									
Film processing:		Manual:		Automatic:											
				Fóliafajta és vastagság:		Pb 0,027									
				Screen type and thick:											
Hibák/Defects															
Megnevezés Designation	Méret Size	Férfelvétele száma: Number of radiographs	Átlagított anyagsűrűség: Recastified thickness	Sugárforrás film távolság: Source-to-film distance	Fő táv. a tárgy sugárforrás felől Distance from source side of object to film	Férfelvétele: Density	Megvilágítás idő: Expos. Time	Működési Állapot: Result	Vizsgálati időpontja: Date of test	Gláz	Salak	Kötés	Gyök	Repedés	Felület
										Porosity A	Slag B	Lack of fusion C	Lack of penetration D	Crack E	Surface F
										200	300	401	402	100	500
✓ 8083	115/77	4	19	96	19	2,4	0,5	A	10.30.10h						
✓ 8084	115/77	4	19	96	19	2,4	0,5	A	10.30.10h						
✓ 8085	115/77	4	19	96	19	2,4	0,5	A	10.30.10h						
✓ 8086	115/77	4	19	96	19	2,4	0,5	A	10.30.10h						
✓ 8087	115/77	4	19	96	19	2,4	0,5	A	10.30.10h						
✓ 8088	115/77	4	19	96	19	2,4	0,5	A	10.30.10h						

A filmszámok és varratszámok azonosak, beazonosításuk a megrendelőt terheli.

The numbers of the films and welds are identical, their identification is the task of the customer.

Vizsgálatot végezte:

Ménesi I. - Szabó T.

Performed by:

Vizsgálat helye:
Place of test:

6750 Algyő,
Gamma-Controll Kft. Telephely

Értékelte:
Evaluated by:

Ménesi István
RT20101120107

Jóváhagyta:
GAMMA - CONTROLL KFT
6750 Algyő, Káltertelek 01884/14. hrsz.
Adószám: H0246142-04
www.gammacontroll.hu
Tel.: +36 30 218 2540
Félidő: V2380

Ez a jegyzőkönyv részleteiben nem másolható! / Copying details is prohibited!

8. változat.2013.07.18

Feladó : 61344

gamma kontroll kft

19/10/13 12:48 Lap: 1

 www.gamma-control.hu 6750 Algyő, Kálvária út 01894/14. hrsz. Tel/Fax: +36 82/917-400 / 61344 A HATÁRI ÉRTÉK: 1140/2010 szabvány szerinti vizsgálati követelmény	RADIOGRÁFIAI VIZSGÁLATI JEGYZŐKÖNYV RADIOGRAPHIC EXAMINATION REPORT	Jegyzőkönyv szám: Report No.: 2430/13 Készítés dátuma: Date of report: 2013.10.30
---	--	--

Vizsgálat tárgya: Object:		Coupling		Megrendelő: Client:		JE-ZO Kft. Szeged	
Munkaszám:		---		Rendelési szám:		---	
Jel No.:		---		Order No.:		---	
Rajpszám:		MT-3121-3000		Anyagminőség:		AISI 4130	
Drawing No.:		---		Material:		---	
Vizsgálati szabvány:		QCP-13-1		Vizsgálat terjedelme:		100%	
Testing standard:		---		Extent of testing:		---	
Átvételi követelmény:		ASTM E94		Hőkezelés:		After PWHT	
Acceptance criteria:		---		Heat treatment condition:		---	
Kód:		MSZ EN ISO 6520-1		Hegesztési jel:		BC15	
Code:		---		Welder stamp:		---	
Berendezés típusa:		GAMMAMAT		Képmínőségjelző típusa:		ASTM set B type	
Type of equipment:		---		Type of IQI:		---	
Sugárforrás:		Ir192		Képmínőségjelző helye:		F	
Source:		---		Placement of IQI:		---	
Sugárforrás mérete:		3x1,5mm		Képmínőségjelző:		2% (2-2T)	
Source size:		---		Required IQI:		---	
Aktivitás:		0,4 TBq		Film típus:		FOMA R5	
Activity:		---		Film Type:		---	
Filmfeldolgozás módja:		Kézi: Manual:		Automata: Automatic:		X	
Film processing:		---		Fóliafajla és vastagság:		Pb 0,027	
---		---		Screen type and thick:		---	

Megnevezés Designation	Méret Size	Fényerő Number of radiographs	Átlagított anyagvastagság Penetrated thickness	Sugárforrás film távolság Source-to-film distance	Film és a tárgy közötti távolság Distance from source side of object to film	Féldenségek Density	Mérési idő Expos. Time	Nézőcső használata N/A-when required	Részlet A-zoomed N/A-when required	Vizsgálati időpontja Date of test	Hibák/Defects					
											Gláz Porosity A	Salak Slag B	Kötés Lack of fusion C	Gyök Lack of penetration D	Repedés Crack E	Felület Surface F
8089	115/77	4	19	96	19	2,4	0,5	A	10,70 10h							
8090	115/77	4	19	96	19	2,4	0,5	A	10,70 10h							
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

A filmszámok és varratszámok azonosak, beazonosításuk a megrendelőt terheli.

The numbers of the films and welds are identical, their identification is the task of the customer.

Vizsgálatot végezte:

Ménesi I. - Szabó T.

Performed by:

Vizsgálat helye:
Place of test:

6750 Algyő,
Gamma-Control Kft. Telephely

Értékelte:

Evaluated by:

Ménesi István
RT20101120107

Jóváhagyta:

GAMMA - CONTROL KFT
6750 Algyő, Kálvária út 01894/14. hrsz.
Adószám: 1184614-2-46
www.gamma-control.hu
Tel: 82/917-400

Az a jegyzőkönyv részleteiben nem másolható / Copying details is prohibited!

8. változat.2013.07.16



MAGYAR HEGESZTÉSTECHNIKAI ÉS ANYAGVIZSGÁLATI EGYESÜLÉS
(HUNGARIAN ASSOCIATION OF WELDING TECHNOLOGY AND MATERIAL TESTING)
(Certification Body)

RONCSOLÁSMENTES ANYAGVIZSGÁLÓ TANÚSÍTVÁNY
(Certificate of NDT personnel)

Azonosító szám: **RT20101120107**
(Identification No.):

A tanúsított neve:
(The name and forename of
the certificated individual):

Ménesi István

Születési hely/ideje:
(Place and date of birth):

Szentes, 1988. 09. 06.

A tanúsított személy aláírása
(The signature of the certificated individual)

[Handwritten signature]

Vizsgálati eljárás(ok):
(The NDT method(s)):

Radiográfiai anyagvizsgálat
(Radiographic testing)

Ipari terület:
(Industrial sector):

Készülékek, berendezések, létesítmények vizsgálata EM
(Pre and in-service testing of equipment, plant and structure)

Termék terület(ek):
(Product sector(s)):

(c), (w)

A minősítés fokozata:
(The level of certification):

RT2

A tanúsítás és kiadásának időpontja:
(The date of certification and its issue):

Budapest, 2012. 03. 28.

A tanúsítás érvényes:
(The date upon which certification expires):

2017. 03. 27.

Tanúsító Testület nevében
(On behalf of certifying body)

Vizsgáztató
(Examiner)

Az ipari és/vagy termék terület érvényesség kiterjesztve:
(The industrial and/or product sector has been expanded to):

Dátum (Date):

Kijelölés:
9/2001 GM
06/2004 GEM

A tanúsítás érvényessége
(Renewed the validity of the certification until (MSZ EN 473 9.):)

-ig megújítva (MSZ EN 473 9.):

Dátum (Date):

Tanúsító Testület nevében
(On behalf of certification body)

A Magyar Hegesztéstechnikai és Anyagvizsgálati Egyesülés, mint „a Nemzeti Akkreditáló Testület által a NAT-5-0013/2010 számon akkreditált személytanúsító szervezet” a nevezett személyt tanúsítja az MSZ EN 473 szerint eredményes vizsgálata alapján a fentiek szerint:
(The Hungarian Association of Welding Technology and Material Testing as an “accredited certification body for person an by National Accreditation Board (under No. NAT-5-013/2010”, on the basis of his/her successful examination under the standard MSZ EN 473, hereby certifies the named individual according to the above:)

* c - öntvények (castings); f - kovácsolt termékek (forgings); w - hegesztett kötések-termékek (welded products); t - csövek (tubes); wp - alakított termékek (wrought products); p - műanyag termékek (plastics products); k - kompozitok (composites products).

RT20101120107



MAGYAR HEGESZTÉSTECHNIKAI ÉS ANYAGVIZSGÁLATI EGYESÜLÉS
(HUNGARIAN ASSOCIATION OF WELDING TECHNOLOGY AND MATERIAL TESTING)
(Certification Body)

Meghatalmazzuk a tanúsítvány tulajdonosát, hogy vizsgálatokat végezzen és azok eredményéért felelősséget vállaljon.
(MSZ EN 473 3.21)

(The holder of this certificate has been authorised to perform tests and take responsibility for the test results. (MSZ EN 473 3.21))

Munkáltató aláírása:
(Signature of the employer.)

GAMMA-CONTROLL Kft.
6126 Szeged, Tuzok
Adószám: 11094614-2-06
OTP Bank: 11735005-20406154
www.gamma-control.hu
Tel: 06-30-218-2640

Dátum:
(Date:)

2012. 04. 19.

Folyamatos munkavégzés igazolása (MSZ EN 473 9.)
(Evidence of continued work activity (MSZ EN 473 9.))

Sorsz.:	Munkáltató aláírása (Signature of the employer)	Ph. (Stamp)	Dátum (Date)
1.		"GAMMA-CONTROLL" Anyagvizsgáló és Minőségellenőrző Kft.	2012. 04. 19.
2.		"GAMMA-CONTROLL" Anyagvizsgáló és Minőségellenőrző Kft.	2013. 06. 09.
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Kiegészítések:
(Additional remarks:)

ContiTech Rubber Industrial Kft. Szeged/Hungary		Examination record Vizsgálati jegyzőkönyv Liquid penetrant examination Festékdifúziós vizsgálat ☒ Magnetic particle examination Mágneses repedésvizsgálat		Record No. Jegyzőkönyv száma : 1222/13	
Manufacturer Gyártó		JE-ZO Kft.		Serial No. Gyári szám	
Customer Megrendelő		ContiTech Rubber Industrial Kft.		8083-8090	
Object Tárgy		coupling(s)		Drawing No. Rajzszám	
Quantity Mennyiség		8 pc(s)		MT 3121-3000	
Requirements Követelmények		ASTM E 709		Material Anyagminőség	
Written Procedure No. Vizsgálati eljárás száma		QCP-11-1		AISI 4130	
				Extent of examination Vizsgálat terjedelme	
				100 % outside	
				Heat treatment Hőkezelés	
				yes	
				Welder: Hegesztő:	
				Szabó T.	
Liquid penetrant examination /Folyadékbehatolásos vizsgálat					
Penetrant Behatoló anyag		Remover Tisztító		Developer Előhívó	
Dwell time Behatolási idő		Drying Szárítás		Developing time Előhívási idő	
Surface temperature A felület hőmérséklete		Surface condition Felület állapota		Lighting intensity Megvilágítás	
Magnetic particle examination/Mágnesezhető poros vizsgálat					
Equipment type Készülék típusa		Testing material Vizsgáló anyag		Magnetizing current Mágnesező áram	
TSW 1000		MR 76F		1000 A	
Black light type UV-A lámpa típusa		Field strength checking Térerőmérő		Field strength Térerő	
Superlight C 10A-HE		Berthold disc		4,2 kA/m	
Surface temperature A felület hőmérséklete		Surface condition Felület állapota		Lighting intensity Megvilágítás	
23 °C		machined		1000 µW/cm ²	
Test results Eredmények :					
satisfactory megfelelő.....8..... pc(s)/db					
not accepted nem megfelelő.....-..... pc(s)/db					
Performed by NDE Level II. Vizsgálatot végezte			Revised by Q.C. manager Ellenőrizte – MEO vezető		
Signature Aláírás			Signature Aláírás		
Place/Date			Place/Date		
Kelt Szeged, 04.11.2013.			Kelt Szeged, 04.11.2013.		
Oravecz Gábor			Markó László		
ContiTech Rubber Industrial Kft. QC 3			ContiTech Rubber Industrial Kft. QC 1		



MAGYAR HEGESZTÉSTECHNIKAI ÉS ANYAGVIZSGÁLATI EGYESÜLÉS
(HUNGARIAN ASSOCIATION OF WELDING TECHNOLOGY AND MATERIAL TESTING)
(Certification Body)

RONCSOLÁSMENTES ANYAGVIZSGÁLÓ TANÚSÍTVÁNY
(Certificate of NDT personnel)

Azonosító szám: **MT20103010506Ú**
(Identification No.):

A tanúsított neve:
(The name and forename of
the certificated individual):
Születési hely/ide:
(Place and date of birth):

Oravecz Gábor
Szeged, 1958. 07. 07.

A tanúsított személy aláírása
(The signature of the certificated individual)

Vizsgálati eljárás(ok):
(The NDT method(s)):

Mágnesezhető poros anyagvizsgáló
(Magnetic particle testing)

Ipari terület:
(Industrial sector):

Fémfeldolgozás MM
(Metal manufacturing)

Termék terület(ek):
Product sector(s):

(c), (f), (w), (wp)

A minősítés szintje:
(The level of certification):

MT2

A tanúsítás és kiadásának időpontja:
(The date of certification and its issue):

Budapest, 2012. 02. 21.

A tanúsítás érvényes:
(The date upon which certification expires):

2017. 02. 20.

Tanúsító Testület nevében
(On behalf of certifying body)

Vizsgáztató
(Examiner)

Az ipari és/vagy termék terület érvényesség kiterjesztve:
(The industrial and/or product sector has been expanded to):

Dátum (Date):

Tanúsító Testület nevében
(On behalf of certifying body)

A tanúsítás érvényessége
(Renewed the validity of the certification until (MSZ EN 473 9.):)

-ig megújítva (MSZ EN 473 9.):

Dátum (Date):

Tanúsító Testület nevében
(On behalf of certification body)

A Magyar Hegesztéstechnikai és Anyagvizsgálati Egyesülés, mint „a Nemzeti Akkreditáló Testület által a NAT-5-0013/2010 számon akkreditált személytanúsító szervezet” a nevezett személyt tanúsítja az MSZ EN 473 szerint eredményes vizsgája alapján a fentiek szerint:
(The Hungarian Association of Welding Technology and Material Testing as an “accredited certification body for person an by National Accreditation Board (under No. NAT-5-013/2010”, on the basis of his/her successful examination under the standard MSZ EN 473, hereby certifies the named individual according to the above:)

* c - öntvények (castings); f - kovacsolt termékek (forgings); w - hegesztett kötések-termékek (welded products); t - csövek (tubes); wp - alakított termékek (wrought products); p - műanyag termékek (plastics products); k - kompozitok (composites products).

MT20103010506Ü



MAGYAR HEGESZTÉSTECHNIKAI ÉS ANYAGVIZSGÁLATI EGYESÜLET
(HUNGARIAN ASSOCIATION OF WELDING TECHNOLOGY AND MATERIAL TESTING)
(Certification Body)

* Meghatalmazzuk a tanúsítvány tulajdonosát, hogy vizsgálatokat végezzen és azok eredményéért felelősséget vállaljon.
(MSZ EN 473 3.21)

(The holder of this certificate has been authorised to perform tests and take responsibility for the test results. (MSZ EN 473 3.21))

Munkáltató aláírása:
(Signature of the employer:)

[Handwritten signature]

Dátum: 2012. 02. 21.
(Date:)

Folyamatos munkavégzés igazolása (MSZ EN 473 9.) (Evidence of continued work activity (MSZ EN 473 9.))			
Sorsz.:	Munkáltató aláírása (Signature of the employer)	Ph. ContiTech Rubber Industrial Kft. Quality Control Dept. (1)	Dátum (Date)
1.	<i>[Handwritten signature]</i>		2013. 01. 24.
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Kiegészítések:
(Additional remarks:)

* A tanúsítvány a munkáltató aláírásával érvényes
(This certificate is valid with the signature of the employer.)

Bekaert Hlohovec a.s.
Mierová 2317
92028 Hlohovec / Slovakia
Tel.: 00421337383111
Fax: 00421337422742

505760

STEELCORD
MANUFACTURER : BKHL

Page : 1 / 1

Certificate of Analysis

Delivery No. : 4046181212

Contitech Rubber Industrial Kft.
CONTITECH RUBBER IND SZEGED
Budapesti út 10
H-6728 SZEGED

Sales Order 3046058220/10
Purchase Order 32260330
Inspection lot 090000200665/000001
Batch 3500245379
Date produced 01.07.2013
Date COA 09.08.2013
Spools 32 delivered from a batch of 32 produced
Units 16 delivered from a batch of 16 produced
Delivery net Qty. 10517 KG
Material Description Zinc coated steelcord 1X24DW/3.6 NT 20/36 ZZ B850
5000 M
Lay direction ZZ
Lay length 20/36

Spec customer Contitech Rubber Industrial Kft.
Your code 14-16-07/1
Your spec REV.3 / 15.01.2002
Our Spec H207297 / 26.10.2012

Tests			Specs		Results		
Test	Procedure	Unit	Aim	Min. Max.	Avg. N	Min ind Max ind	
Cord diameter	RA12-100	mm	3,6000	3,4200 3,7800	3,6845 6	3,6640 3,8930	
Linear density	RA30-110	g/m	65,000	61,700 68,300	65,632 6	65,300 65,870	
Cord breaking strength	RA30-203	N		17900,0	19337,0 6	19087,0 19584,0	
Cord elongation at break	RA30-203	%		2,50	2,98 6	2,80 3,15	
Zinc D1	RA40-741	g/m2		32,000	40,057 6	37,870 44,630	
Zinc D2	RA40-741	g/m2		44,000	48,788 6	45,350 55,100	
Residual torsions	RA30-150	Nt	0,000	-3,000 3,000	-0,250 6	-0,500 0,000	

Comments :

D1: 0,54

D2: 0,73

Nominal Chemical composition of High Grade Oxysteel:

%Carbon : 0.70-0.90

%Manganese: 0.40-0.60

%Silicon: <0.230

%S: <0.011

%P: <0.012

Microstructure/Texture: Metallurgically the texture is known as a highly drawn, fine perlitic structure.



Terninox S.p.A. con Unico Socio
 Una società del gruppo ThyssenKrupp Acciai Speciali Terni
 C.N.A. 00882870155



Azienda con sistema di
 gestione certificato da IGO
 secondo ISO 9001

PAG 1/1

CERTIFICATO DI QUALITÀ

Conforme a EN 10204/ 3.1

n° : **63892/2012**

Specifica/Specification:
 EN 10088-2

Destinatario/Receiver:
 ACCIAI VENDER S.P.A.
 VIA A. NOBEL, 3/A
 43100 PARMA

Cliente/Customer: ACCIAI VENDER S.P.A.
 VIA A. NOBEL, 4/A Q.RE IND.LE S.P.I.P.
 43100 PARMA
Acciaio/Steel: 304PS

25 mm

DDT/DEL. NOTE: 16753 **DEL/OF:** 24/05/2012 **Ordine/order Terninox:** P04249 **Ord. Cliente/Customer:**

Matricola Serial Number	Pos Item	Tipo Prodotto Product Type	Fin	Descrizione Description	Dimensioni(mm) Dimensions(mm)	Pezzi Pieces	Weight (Kg)	Rif. Cli. Cust. Ref.	Colata Heat	NIM
CA7997 133882	22	COIL	2B		0.60 x 460.0	1	6040		0431359	310727
C54489 133887	27	NASTRI STRETTI	BA		0.79 x 284.7	1	1290		0431741	324612

IL MATERIALE SOPRA ELENCATO E' STATO DIMENSIONALMENTE E/O SUPERFICIALMENTE TRASFORMATO DA TERNINOX SENZA ALTERARNE LE CARATTERISTICHE MECCANICHE E CHIMICHE
 THE MATERIAL DESCRIBED ABOVE HAS BEEN DIMENSIONALLY AND/OR SUPERFICIALLY TRANSFORMED BY TERNINOX WITHOUT CHANGING THE MECHANICAL AND CHEMICAL FEATURES

Analisi di colata/Chemical Composition

Colata/Heat	C %	Si %	Mn %	P %	S %	Cr %	Ni %	Mo %	N %	Ti %	Cu %	Nb %	B %	Al %	Co %
0431359	0.045	0.300	1.290	0.027	0.001	18.000	9.040	0.280	0.024		0.310				
0431741	0.048	0.310	1.420	0.029	0.001	18.090	9.050	0.320	0.019		0.370				

Risultati delle prove/Test Result (1N/mm²=1 M Pa)

NIM	P E S E N S O R I E V I D E N T I F I C A T O R E	Caric. unit. snervamento Yield strenght		Caric. unit. Rottura Tensile strength		Allungamento a rottura Ultimate elongation (%)			Durezza Hardness	Piega a Bend To 180°	Trattamento Ricott. di solub. / heat treatment of annealing for solubiliz.	Resistenza alla corrosione intergranulare secondo / Resistance to corrosion intergranulare	Grano Grain
		Rp0.2% N/mm²	Rp1% N/mm²	Rm N/mm²	Lo =2"	Lo =80	Lo =A5	HRB					
310727	T T	245	271	607		60.7		70.5			1050	EN ISO 3651-2	
	C T	230	261	604		62.8		66.0					
324612	T T	235	262	588		62.4		70.5			1050	EN ISO 3651-2	
	C T	237	267	605		62.1		72.0					

I dati chimici e fisici sopra riportati sono tratti dal certificato di qualità del nostro fornitore qualificato e cui originale è in nostra possesso e disponibile su richiesta.
 Chemical and physical data reported above are extracted from quality certificate emitted from our qualified supplier; the original document is in our possession and it is available upon your request.

Certifichiamo che i prodotti sopra elencati sono conformi alle prescrizioni dell'ordine/We certify that products listed above are compliant to order prescriptions

(1) Sampling
 T = Testa - Top
 C = Code - Bottom

(2) Sens
 T = Trasversale - Transverse
 L = Longitudinale - Longitudinal

ITAL INOX
 HUNGARIA KFT.
 1184 Budapest, Leikatos út 42/A.
 Tel: 06-7-1690, 291-6239 Fax: 290-5067
 Add: e-mail: 12141537-2-43
 B.A.G. 24 16000060-00000005-01221111

COMPLIES WITH ED 2000/53/EC

Certificato emesso automaticamente

Data/Date 24/05/2012

R. GOVONI

500/24
 506320

OUTSIDE STRIPWOUND TUBE

CONTITECH RUBBER
 Industrial Kft.

No: QC-DB- 651 /2013
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MKEH
Metrológiai Hatóság/Metrology Authority
Mechanikai Mérések Osztály
Section of Mechanical Measurements
BUDAPEST XII., NÉMETVÖLGYI ÚT 37-39.
1535 Budapest, Pf. 919
Telefon: 458-5800
Telefax: 458-5927

Ügyiratszám / File No.:
MKEH-MH/00287-003/2013/NY
Bizonyítványszám / Certificate No.:
NYO - 0008/2013
Hivatkozási szám / Reference No.:
32259470
Page 1/3 oldal
Kiadva / Issued
Budapest, 2013. 01. 28. / 28 01 2013

KALIBRÁLÁSI BIZONYÍTVÁNY
CALIBRATION CERTIFICATE

A kalibrálás tárgya: villamos kimenőjelű nyomásmérő
Object of calibration: electrical-output manometer
Gyártó / Manufacturer: AFRISO-EURO-INDEX GmbH
Típus / Type: DMU03 HD
Azonosító szám / Serial No.: 1518086
Műszaki adatok / Technical data: (0...2500) bar méréstartomány / measuring range (0...2500) bar
(4...20) mA kimenőjel tartomány / output signal range (4...20) mA

Kalibrálásra bemutatta: ContiTech Rubber Industrial Kft.
Customer: 6728 Szeged, Budapesti út 10.

A kalibrálás helye és ideje: Magyar Kereskedelmi Engedélyezési Hivatal
Place and date of calibration: Hungarian Trade Licensing Office
Metrológiai Hatóság, Mechanikai Mérések Osztály
Metrology Authority, Section of Mechanical Measurements
Budapest, 2013.01.24.

A kalibrálást végezte:
Calibrated by: Szaulich Dénes
metrológus / metrologist

A kalibrálásnál alkalmazott etalonok:
Standards used for the calibration:

Megnevezés: Designation:	Gyártó: Manufacturer:	Típus: Type:	Gyártási szám: Serial No.:	Bizonyítvány szám: Certificate No.:
tűlnyomás etalon / pressure standard	Budenberg	283	20603	NYO-0001/2013
digitális multiméter / digital multimeter	Keithley	2000	0597910	ELD-0014/2012
normál ellenállás / resistance standard	ZIP	P 331	117530	ELD-0021/2012
hőmérő / temperature measuring instr.	GANZ MM	DTH1	33656	Hőm-0296/2012

A mérési eredmények a nemzeti (nemzetközi) etalonra visszavezetettek.
The measuring results are traceable to national standards.

A kalibrálás módja:
Calibration method:

A kalibrálást a KE NYO-3-2002 számú kalibrálás eljárás alapján végeztük.
The calibration was done according to the calibration procedure No.: KE NYO-3-2002.



This certificate is consistent with Calibration and Measurement Capabilities (CMCs) that are included in Appendix C of the Mutual Recognition Arrangement (MRA) drawn up by the International Committee for Weights and Measures (CIPM). Under the MRA, all participating institutes recognize the validity of each other's calibration and measurement certificates for the quantities, ranges and measurement uncertainties specified in Appendix C (for details see <http://www.bipm.org>).

A bizonyítvány az MKEH írásbeli engedélye nélkül csak teljes formájában és terjedelmében másolható!
The calibration certificate shall not be reproduced except in full, without written approval of MKEH!



MKEH

Metrológiai Hatóság/Metrology Authority
Mechanikai Mérések Osztály
Section of Mechanical Measurements

Ügyiratszám / File No.:

MKEH-MH/00287-003/2013/NY

Bizonyítványszám / Certificate No.:

NYO - 0008/2013

Page 2/3 oldal

A kalibrálás körülményei:**Calibration conditions:**

környezeti hőmérséklet / Ambient temperature

21,1 °C

a kalibrált eszköz helyzete / Position of the calibrated manometer

függőleges / vertical

a kalibrált eszköz tápfeszültsége / Supply voltage of the calibrated manometer

24V DC

nyomóközeg / Pressure transfer medium

olaj / oil

Mérési eredmények a (0...2500) bar nyomástartományban:*Results of the measurements in the pressure range of (0...2500) bar:*

Nyomás, névleges érték <i>Pressure, nominal value</i> bar	Áram-kimenőjel, névleges érték <i>Current-Output, nominal value</i> mA	Áram-kimenőjel, mért eltérés a helyes értéktől <i>Current-Output, measured deviation from the reference value</i> mA	Nyomás, mért eltérés a helyes értéktől <i>Pressure, measured deviation from the reference value</i> bar	Eredő mérési bizonytalanság <i>Expanded uncertainty of the measurement</i> bar
0	4,0	-0,0042	-0,7	2,6
250	5,6	-0,0002	0,0	
500	7,2	0,0029	0,5	
750	8,8	0,0050	0,8	
1000	10,4	0,0063	1,0	
1250	12,0	0,0053	0,8	
1500	13,6	0,0033	0,5	
1750	15,2	-0,0003	-0,1	
2000	16,8	-0,0052	-0,8	
2250	18,4	-0,0117	-1,8	
2500	20,0	-0,0192	-3,0	

Mérési bizonytalanság: A mérési eredmény(ek) mellett közölve.*Uncertainty of measurement:* See next to the results of the measurements.

A közölt kiterjesztett mérési bizonytalanság a standard bizonytalanságnak k kiterjesztési tényezővel szorzott értéke ($k = 2$), amely normális (Gauss) eloszlás feltételezésével közelítőleg 95%-os fedési valószínűségnek felel meg.

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k=2$, which for a normal distribution corresponds to coverage probability of approximately 95 %.

A mérési bizonytalanság tartalmazza az etalonból, a kalibrálás módszeréből, a környezeti feltételekből, a kalibrált mérőeszközből stb. eredő részbizonytalanságokat.

It contains the uncertainties of the standards, calibration method, environmental conditions, calibrated device etc.

A standard bizonytalanság meghatározása az EA-4/02 (Expression of the Uncertainty of Measurement in Calibration) kiadványnak megfelelően történt.

The standard uncertainty of measurement has been determined in accordance with the EA Publication EA 4/02 (Expression of the Uncertainty of Measurement in Calibration).

A bizonyítvány az MKEH írásbeli engedélye nélkül csak teljes formájában és terjedelmében másolható!

The calibration certificate shall not be reproduced except in full, without written approval of MKEH!



MKEH

Metrológiai Hatóság/Metrology Authority
Mechanikai Mérések Osztály
Section of Mechanical Measurements

Ügyiratszám / File No.:

MKEH-MH/00287-003/2013/NY

Bizonyítványszám / Certificate No.:

NYO - 0008/2013

Page 3/3 oldal

Bélyegzés:

Calibration mark:

A kalibrált mérőeszközön **K067662** azonosító számú kalibrálási bélyeget helyeztünk el.

We have placed a calibration stamp No.: K067662 on the calibrated instrument.

Megjegyzések:

Additional remarks:

Jelen bizonyítvány összhangban van a Nemzetközi Súly és Mértékügyi Bizottság (CIPM) Kölsönös Elismerési Megegyezése (MRA) C függeléke által tartalmazott kalibrálási és mérési képességekkel (CMCs). Az MRA minden aláíró intézete elismeri egymás kalibrálási és mérési bizonyítványait a C függelék szerinti mennyiségfajtákra, azok értéktartományaival és mérési bizonytalanságaival (közelebbit lásd: <http://www.bipm.org>)

This certificate is consistent with Calibration and Measurement Capabilities (CMCs) that are included in Appendix C of the Mutual Recognition Arrangement (MRA) drawn up by the International Committee for Weights and Measures (CIPM). Under the MRA, all participating institutes recognize the validity of each other's calibration and measurement certificates for the quantities, ranges and measurement uncertainties specified in Appendix C (for details see <http://www.bipm.org>)

A kalibrálási bizonyítványban megadott értékek a mérőeszköznek a kalibrálás idejére és körülményeire jellemző adatai.

The measurement results show the metrological properties of the device during the time of the calibration under the environmental conditions listed above.

Az újrakalibrálás időpontját a felhasználó dönti el a mérőeszköz használatának és állapotának függvényében.

The date of the next calibration is decided by the user. It depends on the usage and the condition of the device.

A bizonyítvány kiadható / Approved by:




Kálóczi László
osztályvezető / Head of Section



Requested Exceptions

- Variance is requested to connect the BOP choke outlet to the choke manifold using a co-flex line (instead of using a 4" OD steel line) with a 10,000 psi working pressure that has been tested to 15,000 psi and is built to API Spec 16C. Once the flex line is installed it will be tied down with safety clamps.
- Variance is requested to allow Option of rig not capable of reaching TD presetting Surface
- Variance is requested to wave any centralizer requirements on the 5-1/2 Casing. Ameredev will utilize cement expansion additives in the cement slurry to maximize cement bond and zonal isolation.
- Variance is requested to wave any centralizer requirements on the 7-5/8 Casing. Ameredev will utilize cement expansion additives in the cement slurry to maximize cement bond and zonal isolation.
- Variance is requested to allow Temporary Postponement of Operations on well to Skid to adjacent well.
- Variance is requested to Allow use of Multi Bowl Well Head System
- Variance is requested to Allow adjustment of Casing Design Safety Factor on conditions that Ameredev keeps minimum of 1/3 casing capacity filled with OMW drilling fluids
- Variance is requested to Drill Surface Casing to Base Salt with >100K Chlorides on the conditions that 50% Returns will be maintained



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

SUPO Data Report

10/24/2018

APD ID: 10400032278

Submission Date: 07/19/2018

Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Number: 125H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data
reflects the most
recent changes.

[Show Final Text](#)

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Golden_Bell__6N_Wells_20180913092530.pdf

GOLDEN_BELL_FED_COM_26_36_06_125H__WELL_PAD_ACCESS_20180913092547.pdf

Existing Road Purpose: ACCESS

Row(s) Exist? YES

ROW ID(s)

ID: NM-138148

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

GOLDEN_BELL_FED_COM_26_36_06_125H__WELL_PAD_ACCESS_20180913092704.pdf

Golden_Bell__6N_Wells_20180913092717.pdf

New road type: RESOURCE

Length: 3801

Feet

Width (ft.): 30

Max slope (%): 2

Max grade (%): 2

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 20

New road access erosion control: Crowned and Ditched

New road access plan or profile prepared? NO

New road access plan attachment:

Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Number: 125H

Access road engineering design? NO

Access road engineering design attachment:

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: CALICHE

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: GRADER

Access other construction information: NM One Call (811) will be notified before construction start.

Access miscellaneous information:

Number of access turnouts:

Access turnout map:

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: Crowned and Ditched

Road Drainage Control Structures (DCS) description: None

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Additional Attachment(s):

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

GOLDEN_BELL_FED_COM_26_36_06_125H__1_MILE_RADIUS_WELLS_20180913092839.pdf

Existing Wells description:

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: A multiple well pad will be located on section 31, and will measure 400'x500'. The top 6" of soil and brush will be stockpiled north of the well pad. A 4" Poly Flowline will be buried and run approximately 1,305' (805' Needing ROW) from the Golden Bell 26 36 06 125H to the Golden Bell CTB that will be north of the well pad. A 20' pipeline ROW containing three 12" poly water lines and one 8" steel crude line will be run from the Golden Bell CTB to the right of way (NM-138148) approved pipeline corridor. The new lines will be 1,380'. A power line will be run parallel to the pipeline corridor and connect to a power line that will be built in an existing approved right of way (NM-138148). The power line will be

Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Number: 125H

approximately 1,360'. The Golden Bell CTB will be 500'x525' and will include a separator, Heat Exchanger, VRU, VRT, meter run and a tank battery. The new production facility will have a secondary containment structure that is constructed to hold the capacity of 1-1/2 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary. Because this facility goes off lease on BLM owned surface, the pipeline, road, electric corridors, and the Golden Bell CTB will need ROW from the BLM.

Production Facilities map:

GOLDEN_BELL_FED_COM_26_36_06_125H__WELL__FACILITIES_MAP_20180913092926.pdf

Golden_Bell__6N_Wells_20180913092940.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: DUST CONTROL,
INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACE
CASING

Water source type: GW WELL

Describe type:

Source longitude:

Source latitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Source land ownership: PRIVATE

Water source transport method: TRUCKING

Source transportation land ownership: FEDERAL

Water source volume (barrels): 20000

Source volume (acre-feet): 2.577862

Source volume (gal): 840000

Water source and transportation map:

GOLDEN_BELL_FED_COM_26_36_06_125H__WATER_MAP_20180913093114.pdf

GOLDEN_BELL_FED_COM_26_36_06_125H__WATER_WELLS_LIST_20180913093117.pdf

Water source comments: Water will be trucked or surface piped from existing water wells on private land. See attached list of available wells.

New water well? NO

New Water Well Info

Well latitude:

Well Longitude:

Well datum:

Well target aquifer:

Est. depth to top of aquifer(ft):

Est thickness of aquifer:

Aquifer comments:

Aquifer documentation:

Well depth (ft):

Well casing type:

Well casing outside diameter (in.):

Well casing inside diameter (in.):

Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Number: 125H

New water well casing?

Used casing source:

Drilling method:

Drill material:

Grout material:

Grout depth:

Casing length (ft.):

Casing top depth (ft.):

Well Production type:

Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: NM One Call (811) will be notified before construction start. Top 6" of soil and brush will be stockpiled north of the pad. V-door will face east. Closed loop drilling system will be used. Caliche will be hauled from an existing caliche pits on private and state land.

Construction Materials source location attachment:

GOLDEN_BELL_FED_COM_26_36_06_125H__CALICHE_MAP_20180913093208.pdf

GOLDEN_BELL_FED_COM_26_36_06_125H__WELL_SITE_DIAGRAM_20180913093220.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drill cuttings, mud, salts, and other chemicals

Amount of waste: 2000 barrels

Waste disposal frequency : Daily

Safe containment description: Steel tanks on pad

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE

Disposal type description:

Disposal location description: R360's State approved (NM-01-0006) disposal site at Halfway, NM

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Number: 125H

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Description of cuttings location Steel tanks on pad

Cuttings area length (ft.)

Cuttings area width (ft.)

Cuttings area depth (ft.)

Cuttings area volume (cu. yd.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

GOLDEN_BELL_FED_COM_26_36_06_125H__WELL_SITE_DIAGRAM_20180913093400.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: GOLDEN BELL

Multiple Well Pad Number: 125H

Recontouring attachment:

GOLDEN_BELL_FED_COM_26_36_06_125H__WELL_SITE_DIAGRAM_20180913093426.pdf

Drainage/Erosion control construction: Crowned and ditched

Drainage/Erosion control reclamation: Harrowed on the contour

Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Number: 125H

Well pad proposed disturbance (acres): 4.59
Road proposed disturbance (acres): 2.62
Powerline proposed disturbance (acres): 0.63
Pipeline proposed disturbance (acres): 0.63
Other proposed disturbance (acres): 6.03
Total proposed disturbance: 14.5

Well pad interim reclamation (acres): 0.79
Road interim reclamation (acres): 0
Powerline interim reclamation (acres): 0
Pipeline interim reclamation (acres): 0
Other interim reclamation (acres): 0
Total interim reclamation: 0.79

Well pad long term disturbance (acres): 3.8
Road long term disturbance (acres): 2.62
Powerline long term disturbance (acres): 0.63
Pipeline long term disturbance (acres): 0.63
Other long term disturbance (acres): 6.03
Total long term disturbance: 13.71

Disturbance Comments:

Reconstruction method: Interim reclamation will be completed within 6 months of completing the well. Interim reclamation will consist of shrinking the pad 17% (.79 acre) by removing caliche and reclaiming 40' wide swaths on the North and East sides of the pad. This will leave 3.8 acres for producing three wells, with tractor-trailer turn around. Disturbed areas will be contoured to match pre-construction grades. Soil and brush will be evenly spread over disturbed areas and harrowed on the contour. Disturbed areas will be seeded in accordance with the surface owner's requirements.

Topsoil redistribution: Enough stockpiled topsoil will be retained to cover the remainder of the pad when the well is plugged. New road will be similarly reclaimed within 6 months of plugging. Noxious weeds will be controlled.

Soil treatment: None

Existing Vegetation at the well pad:

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road:

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline:

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances:

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Number: 125H

Seed Management

Seed Table

Seed type:

Seed source:

Seed name:

Source name:

Source address:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Proposed seeding season:

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre
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Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name:

Last Name:

Phone:

Email:

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: To BLM standards

Weed treatment plan attachment:

Monitoring plan description: To BLM standards

Monitoring plan attachment:

Success standards: To BLM satisfaction

Pit closure description: No pit

Pit closure attachment:

Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Number: 125H

Section 11 - Surface Ownership

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: PIPELINE

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Number: 125H

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: OTHER

Describe: POWERLINE

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

Operator Name: AMEREDEV OPERATING LLC

Well Name: GOLDEN BELL FED COM 26 36 06

Well Number: 125H

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Section 12 - Other Information

Right of Way needed? YES

Use APD as ROW? YES

ROW Type(s): 281001 ROW - ROADS,285003 ROW – POWER TRANS,288100 ROW – O&G Pipeline,288103 ROW – Salt Water Disposal Pipeline/Facility,289001 ROW- O&G Well Pad

ROW Applications

SUPO Additional Information:

Use a previously conducted onsite? YES

Previous Onsite information: On-site inspection was held with Jeff Robertson (BLM) on 5/23/18. Ameredev made a donation with the MOU fund in lieu of an archaeology report.

Other SUPO Attachment

GOLDEN_BELL_FED_COM_26_36_06_125H___SURFACE_USE_PLAN_20180913094707.pdf

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number:

Injection well name:

Assigned injection well API number?

Injection well API number:

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:



**U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT**

Bond Info Data Report

10/24/2018

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB001478

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment: